

Part 1924 - CONSTRUCTION AND REPAIR

Subpart A - Planning and Performing Construction and Other Development

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PART 1924 - CONSTRUCTION AND REPAIR

Subpart A - Planning and Performing Construction and Other Development

§1924.1 Purpose.

This subpart prescribes the basic Rural Development policies, methods, and responsibilities in the planning and performing of construction and other development work for insured Rural Housing (RH), insured Farm Ownership (FO), Soil and Water (SW) Softwood Timber (ST) single unit Labor Housing (LH), and Emergency (EM) loans for individuals. It also provides supplemental requirements for Rural Rental Housing (RRH) loans, Rural Cooperative Housing (RCH) loans, multiunit (LH) loans and grants, and Rural Housing Site (RHS) loans. (Revised 10-14-88, SPECIAL PN.)

§1924.2 [Reserved]

§1924.3 Authorities and responsibilities.

The County Supervisor and District Director are authorized to redelegate, in writing, any authority delegated to them in this subpart to the Assistant County Supervisor and Assistant District Director, respectively, when determined to be qualified. Rural Development Construction Inspectors, District Loan Assistants, and County Office Assistants are authorized to perform duties under this subpart as authorized in their job descriptions.

§1924.4 Definitions.

- (a) Construction. Such work as erecting, repairing, remodeling, relocating, adding to or salvaging any building or structure, and the installation or repair of, or addition to, heating and electrical systems, water systems, sewage disposal systems, walks, steps, driveways, and landscaping.
- (b) Contract documents. The borrower-contractor agreement, the conditions of the contract (general, supplementary, and other), the drawings, specifications, warranty information, all addenda issued before executing the contract, all approved modifications thereto, and any other items stipulated as being included in the contract documents.
- (c) Contractor. The individual or organization with whom the borrower enters into a contract for construction or land development, or both.

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(d) County Supervisor and District Director. In Alaska, for the purpose of this subpart, "County Supervisor" and "District Director" also mean "Assistant Area Loan Specialist" and "Area Loan Specialist," respectively. The terms also include other qualified staff who may be delegated responsibilities under this subpart in accordance with the provisions of Subpart F of Part 2006 (available in any Rural Development office).

(e) Date of commencement of work. The date established in a "Notice to Proceed" or, in the absence of such notice, the date of the contract or other date as may be established in it or by the parties to it.

(f) Date of substantial completion. The date certified by the Project Architect/Engineer or County Supervisor when it is possible, in accordance with any contract documents and applicable State or local codes and ordinances, and the Rural Development approved drawings and specifications, to permit safe and convenient occupancy and/or use of the buildings or other development.

(g) Development. Construction and land development.

(h) Development standards. Any of the following codes and standards:

(1) A standard adopted by Rural Development for each state in accordance with §1924.5 (d) (1) (i) (E) of this subpart.

(2) Voluntary national model building codes (model codes). Comprehensive documents created, referenced or published by nationally recognized associations of building officials that regulate the construction, alteration and repair of building, plumbing, mechanical and electrical systems. These codes are listed in Exhibit E of this subpart.

(3) Minimum Property Standards (MPS). The Department of Housing and Urban Development (HUD) Minimum Property Standards for Housing, Handbook 4910.1, 1984 Edition with Changes. (For One and Two Family Dwellings and Multi-Family Housing.)

(i) Identity of interest. Identity of interest will be construed as existing between the applicant (the party of the first part) and general contractors, architects, engineers, attorneys, subcontractors, material suppliers, or equipment lessors (parties of the second part) under any of the following conditions:

(1) When there is any financial interest of the party of the first part in the party of the second part. The providing of normal professional services by architects, engineers, attorneys or accountants with a client-professional relationship shall not constitute an identity of interest.

§ 1924.4(i) (Con.)

(2) When one or more of the officers, directors, stockholders, or partners of the party of the first part is also an officer, director, stockholder, or partner of the party of the second part;

(3) When any officer, director, stockholder, or partner of the party of the first part has any financial interest whatsoever in the party of the second part;

(4) Between the spouse, significant other, relatives, and step-relatives of the principal owners of the party of the first part and its management, such as Grandmother, Aunt, Daughter, Granddaughter, Grandfather, Uncle, Son, Grandson, Mother, Sister, Niece, Cousin, Father, Brother, Nephew;  
(Added 03-16-94, SPECIAL PN.)

(5) When the party of the second part advances any funds to the party of the first part; (Renumbered 03-16-94, SPECIAL PN.)

(6) When the party of the second part provides and pays on behalf of the party of the first part the cost of any legal services, architectural services or engineering services other than those of a surveyor, general superintendent, or engineer employee by a general contractor in connection with obligations under the construction contract; (Renumbered 03-16-94, SPECIAL PN.)

(7) When the party of the second part takes stock or any interest in a party of the first part as part of the consideration to be paid; (Renumbered 03-16-94, SPECIAL PN.)

(8) When there exists or comes into being any side deals, agreements, contracts, or undertakings entered into thereby altering, amending, or canceling any of the required closing documents except as approved by Rural Development. (Renumbered 03-16-94, SPECIAL PN.)

(9) An identity of interest will also exist when another party can significantly influence the management or operating policies of the transacting parties or if it has an ownership interest in one of the transacting parties and can significantly influence the other to an extent that one or more of the transacting parties might be prevented from fully pursuing its own separate interests. (Added 03-16-94, SPECIAL PN.)

(j) Land development. Includes items such as terracing, clearing, leveling, fencing, drainage and irrigation systems, ponds, forestation, permanent pastures, perennial hay crops, basic soil amendments, pollution abatement and control measures, and other items

of land improvement which conserve or permanently enhance productivity. Also, land development for structures includes the applicable items above, and items such as rough and finish grading, retaining walls, water supply and waste disposal facilities, streets, curbs and gutters, sidewalks, entrancewalks, driveways, parking areas, landscaping and other related structures.

(k) Manufactured housing. Housing, constructed of one or more factory-built sections, which includes the plumbing, heating and electrical systems contained therein, which is built to comply with the Federal Manufactured Home Construction and Safety Standards (FMHCSS), and which is designed to be used with or without a permanent foundation. Specific requirements for manufactured homes sites, rental projects and subdivisions are in Exhibit J of this subpart.

(l) Mechanic's and materialmen's liens. A lien on real property in favor of persons supplying labor and/or materials for the construction for the value of labor and/or materials supplied by them. In some jurisdictions, a mechanic's lien also exists for the value of professional services.

(m) Modular/panelized housing. Housing, constructed of one or more factory-built sections, which, when completed, meets or exceeds the requirements of one or more of the recognized development standards for site-built housing, and which is designed to be permanently connected to a site-built foundation.

(n) Project representative. The architect's or owner's representative at the construction site who assists in the administration of the construction contract. When required by Rural Development, a full-time project representative shall be employed.

(o) Technical services. Applicants are responsible for obtaining the services necessary to plan projects including analysis of project design requirements, creation and development of the project design, preparation of drawings, specifications and bidding requirements, and general administration of the construction contract.

(1) Architectural services. The services of a professionally qualified person or organization, duly licensed and qualified in accordance with state law to perform architectural services.

(2) Engineering services. The services of a professionally qualified person or organization, duly licensed and qualified in accordance with State law to perform engineering services.

## §1924.4 (Con.)

(p) Warranty. A legally enforceable assurance provided by the builder (warrantor) to the owner and the Rural Development indicating that the work done and materials supplied conform to those specified in the contract documents and applicable regulations. For the period of the warranty, the warrantor agrees to repair defective workmanship and repair or replace any defective materials at the expense of the warrantor.

§1924.5 Planning development work.

(a) Extent of development. For an FO loan, the plans for development will include the items necessary to put the farm in a livable and operable condition consistent with the planned farm and home operations. For other types of loans, the plans will include those items essential to achieve the objectives of the loan or grant as specified in the applicable regulation.

## § 1924.5 (Con.)

(b) Funds for development work. The total cash cost of all planned development will be shown on Form RD 1924-1, "Development Plan," except Form RD 1924-1 may be omitted when (1) all development is to be done by the contract method, (2) adequate cost estimates are included in the docket, and (3) the work, including all landscaping, repairs, and site development work, is completely described on the drawings, in the specifications, or in the contract documents. Sufficient funds to pay for the total cash cost of all planned development must be provided at or before loan closing. Funds to be provided may include loan proceeds, any cash to be furnished by the borrower, proceeds from cost sharing programs such as Agricultural Stabilization and Conservation Service (ASCS) and Great Plains programs or proceeds from the sale of property in accordance with paragraph (g) of this section.

(c) Scheduling of development work.

(1) All construction work included in the development plan for RH loans will be scheduled for completion as quickly as practicable and no later than 9 months from the date of loan closing, except for mutual self-help housing where work may be scheduled for completion within a period of 15 months.

(2) Development for farm program loans will be scheduled for completion as quickly as practicable and no later than 15 months from the date of loan closing unless more time is needed to establish land development practices in the area.

(d) Construction.

(1) All new buildings to be constructed and all alterations and repairs to buildings will be planned to conform with good construction practices. The Rural Development Manual of Acceptable Practices (MAP) Vol. 4930.1 (available in any Rural Development office), provides suggestions and illustrative clarifications of design and construction methods which are generally satisfactory in most areas. All improvements to the property will conform to applicable laws, ordinances, codes, and regulations related to the safety and sanitation of buildings; standards referenced in Appendices C through F of HUD Handbook 4910.1, Minimum Property Standards for Housing; Thermal Performance Construction Standards contained in Exhibit D of this subpart and, when required, to certain other development standards described below.

(Revised 1-27-88, PN 75.)

(i) The development standard applicable to a proposal will be selected by the loan applicant or recipient of an RH Conditional Commitment in accordance with the following. The standard selected must:

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§ 1924.5(d) (1) (i) (Con.)

- (A) Relate to the type(s) of building proposed.
- (B) Meet or exceed any applicable local or state laws, ordinances, codes and regulations.
- (C) Include all referenced codes and standards.
- (D) Exclude inapplicable administrative requirements.
- (E) Be the current edition(s) of either paragraph (1) or (2) below:

(1) The development standard, consisting of building, plumbing, mechanical and electrical codes, adopted by Rural Development for use in the state (identified in a State Supplement to this section) in which the development is proposed, in accordance with the following:

(i) The adopted development standard shall include any building, plumbing, mechanical or electrical code adopted by the state, if determined by the State Director to be based on one of the model codes listed in Exhibit E to this subpart, or, if not available,

(ii) The adopted development standard shall include any building, plumbing, mechanical or electrical code adopted by the state, if determined by the Administrator to be acceptable, or, if not available,

(iii) The adopted development standard shall include the model building, plumbing, mechanical and electrical codes listed in Exhibit E to this subpart that is determined by the State Director to be most prevalent and appropriate for the state.

(2) Any of the model building, plumbing, mechanical and electrical codes listed in Exhibit E to this subpart or the standards defined in §1924.4 (h) (3) of this subpart.

(ii) Guide 2, "Rural Development Design Guide," of this subpart (available in any Rural Development office), includes guidelines for the evaluation of the design features which are not fully addressed in the development standards.

§ 1924.5(d)(1) (Con.)

(iii) In new housing, all design, materials and construction will meet or exceed the applicable development standard as provided in paragraph (d)(1)(i) of this section.

(iv) For multi-family residential rehabilitation, as defined in Exhibit K of this subpart, all substantial rehabilitation work of existing buildings will meet or exceed the applicable development standard. All moderate rehabilitation work should comply with Guide 3, "Quality and Performance Criteria for Moderate Rehabilitation," of this subpart.

(v) The design and construction of housing repairs made with the Agency's loan or grant funds will, as near as possible, comply with the applicable development standard.

(vi) Farm LH design and construction will comply with the following:

(A) Family projects, where the length of occupancy will be:

(1) Year-round, will meet or exceed the applicable development standard.

(2) Less than 12 months, but more than 6 months, will be in substantial conformance with the applicable development standard and constructed to facilitate conversion of year-round occupancy standards.

(3) Six months or less, may be less than the applicable development standard but should be constructed in accordance with Exhibit I of this subpart.

(B) Dormitory and other non-family type projects, where the length of occupancy will be:

(1) More than 6 months, will be in substantial conformance with the applicable development standard and will at least meet or exceed the requirements of the Department of Labor, Bureau of Employment Security (29 CFR 1910.140).

(2) Six months or less, will comply with § 1924.5(d)(1)(vi)(A)(3).

(vii) Farm service buildings should be designed and constructed for adaptation to the local area. In designing and locating farm service buildings, consideration will be given to practices recommended by agriculture colleges, the Extension Service (ES), Natural Conservation Resources Service (NCRS) and other reliable sources.

(2) Drawings, specifications, and estimates will fully describe the work. Technical data, tests, or engineering evaluations may be required to support the design of the development. The "Guide for Drawings and Specifications," Exhibit C of this subpart, describes the drawings and specifications that are to be included in the application for building construction, and Subpart C of Part 1924 of this chapter describes the drawings that should be included for development of building sites. The specific development standard being used, if required under paragraph (d)(1) of this section will be identified on all drawings and specifications. (Revised 6-22-87, SPECIAL PN.)

(3) Materials acceptance shall be the same as described in paragraph X of Exhibit B to this subpart. (Revised 1-27-88, PN 75.)

(4) Except as provided in paragraphs (d)(4)(i) through (iii) of this section, new building construction and additions shall be designed and constructed in accordance with the earthquake (seismic) requirements of the applicable Agency's development standard (building code). The analysis and design of structural systems and components shall be in accordance with applicable requirements of an acceptable model building code. (Added 01-10-97, SPECIAL PN.)

(i) Agricultural buildings that are not intended for human habitation are exempt from these earthquake (seismic) requirements.

(ii) Single family conventional light wood frame dwellings of two stories or 35 feet in height maximum shall be designed and constructed in accordance with the 1992 Council of American Building Officials (CABO) One and Two Family Dwelling Code or the latest edition.

(iii) Single family housing of masonry design and townhouses of wood frame construction and additions financed (either directly or through a guarantee) under title V of the Housing

§1924.5(d) (4) (iii) (Con.)

Act of 1949 are recommended to be designed and constructed in accordance with the earthquake (seismic) requirements of one of the building codes that provides an equivalent level of safety to that contained in the latest edition of the National Earthquake Hazard Reduction Program's (NEHRP) Recommended Provisions for the Development of Seismic Regulations for New Building (NEHRP Provisions).

(iv) Acknowledgment of compliance with the applicable seismic safety requirements for new construction will be contained in the certification of final plans and specification on the appropriate Agency form.

(e) Land development.

(1) In planning land development, consideration will be given to practices, including energy conservation measures, recommended by agricultural colleges, ES, NCRS or other reliable sources. All land and water development will conform to applicable laws, ordinances, zoning and other applicable regulations including those related to soil and water conservation and pollution abatement. The County Supervisor or District Director also will encourage the applicant to use any cost-sharing and planning assistance that may be available through agricultural conservation programs.

(2) Site and subdivision planning and development must meet the requirements of Subpart C of Part 1924 of this chapter. (Revised 6-22-87, SPECIAL PN.)

(3) Plans and descriptive material will fully describe the work.

(4) The site planning design, development, installation and set-up of manufactured home sites, rental projects and subdivisions shall meet the requirements of Exhibit J of this subpart and Subpart C of Part 1924 of this chapter. (Revised 6-22-87, SPECIAL PN.)

§1924.5 (e) (4) (Con.)

(i) Plans for land leveling, irrigation, or drainage should include a map of the area to be improved showing the existing conditions with respect to soil, topography, elevations, depth of topsoil, kind of subsoil, and natural drainage, together with the proposed land development.

(ii) When land development consists of, or includes, the conservation and use of water for irrigation or domestic purposes, the information submitted to the County Supervisor will include a statement as to the source of the water supply, right to the use of the water, and the adequacy and quality of the supply.

(f) Responsibilities for planning development. Planning construction and land development and obtaining technical services in connection with drawings, specification, and cost estimates are the sole responsibility of the applicant, with such assistance from the County Supervisor or District Director (whichever is the appropriate loan processing and servicing officer for the type of loan involved), as may be necessary to be sure that the development is properly planned in order to protect Rural Development's security.

(1) Responsibility of the applicant.

(i) The applicant will arrange for obtaining any required technical services from qualified technicians, tradespeople, and recognized plan services, and the applicant will furnish the Rural Development sufficient information to describe fully the planned development and the manner in which it will be accomplished.

(ii) When items of construction or land development require drawings and specification, they will be sufficiently complete to avoid any misunderstanding as to extent, kind, and quality of work to be performed. The applicant will provide Rural Development with one copy of the drawings and specifications. Approval will be indicated by the applicant and acceptance for the purposes of the loan indicated by the County Supervisor or District Director on all sheets of the drawings and at the end of the specifications, and both instruments will be a part of the loan docket. After the loan is closed, the borrower will retain a conformed copy of the approved drawings and specifications, and provide another conformed copy to the contractor. Items not requiring drawings and specifications may be described in narrative form.

(iii) Rural Development will accept final drawings and specifications and any modifications thereof only after the documents have been certified in writing as being in conformance with the applicable development standard if required under paragraph (d) (1) of this section. Certification is required for all Single Family Housing (SFH) thermal designs (plans, specifications, and calculations). (Revised 08-26-94, SPECIAL PN.)

(A) Certifications may be accepted from individuals or organizations who are trained and experienced in the compliance, interpretation or enforcement of the applicable development standards for drawings and specifications. Plan certifiers may be any of the following:

- (1) Licensed architects,
- (2) Professional engineers,
- (3) Plan reviewers certified by a national model code organization listed in Exhibit E to this subpart,
- (4) Local building officials authorized to review and approve building plans and specifications, or
- (5) National codes organizations listed in Exhibit E to this subpart.

(B) The license or authorization of the individual must be current at the time of the certification statement. A building permit (except as noted in paragraph (f) (1) (iii) (C) (2) of this section) or professional's stamp is not an acceptable substitute for the certification statement. However, a code compliance review conducted by one of the National recognized code organizations indicating no deficiencies or the noted deficiencies have been corrected is an acceptable substitute for the certification statement.

(C) For Single Family Housing (one to four family dwelling units) Rural Development may also accept drawings and specifications that have been certified by:

- (1) Registered Professional Building Designers certified by the American Institute of Building Design.

§1924.5 (f) (1) (iii) (C) (Con.)

(2) A local community, if that community has adopted, by reference, one of the model building codes and has trained official(s) who reviews plans as well as inspects construction for compliance as a requisite for issuing a building permit. The building permit, issued by the community, may serve as evidence of acceptance. The State Director will determine eligible communities and publish, as a State supplement to this section, a list of those communities that qualify.

(3) A plan service that provides drawings and specifications that are certified by individuals or organizations as listed in paragraphs (f) (1) (iii) (A) or (f) (1) (iii) (C) (1) and (2) of this section as meeting the appropriate State adopted development standard.

(4) Builders/Contractors who provide 10-year warranty plans for the specific Rural Development financed dwelling unit that meet the requirements of Exhibit L of this subpart.

(5) Builders/Contractors that are approved by the United States Department of Housing and Urban Development (HUD) for self-certification.

(D) The modifications of certified drawings or specifications must be certified by the same individual or organization that certified the original drawings and specifications. If such individual or organization is not available, the entire set of modified drawings and specifications must be recertified.

(E) The certification of modifications for single family housing (SFH) construction may be waived if the builder provides a written statement that the modifications are not regulated by the applicable development standard. The County Supervisor may consult with the State Office Architect/Engineer as the acceptance of the statement and granting a waiver.

(F) All certifications of final drawings, specifications, and calculations shall be on Form RD 1924-25, "Plan Certification." (Revised 08-26-94, SPECIAL PN.)

(2) Responsibility of the County Supervisor or District Director.

In accordance with program regulations for loans and grants they are required to process, the County Supervisor or District Director, for the sole benefit of Rural Development, will:

- (i) Visit each farm or site on which the development is proposed. For an FO loan, the County Supervisor and the applicant will determine the items of development necessary to put the farm in a livable and operable condition at the outset. Prepare Form RD 1924-1, when applicable in accordance with the Forms Manual Insert (FMI) for the form, after a complete understanding has been reached between the applicant and the County Supervisor regarding the development to be accomplished, including the dates each item of development will be started and completed.

§1924.5 (f) (2) (Con.)

(ii) Notify the loan or grant applicant in writing immediately if, after reviewing the preliminary proposal and inspecting the site, the proposal is not acceptable. If the proposal is acceptable, an understanding will be reached with the applicant concerning the starting date for each item of development.

(iii) Discuss with the applicant the Rural Development requirements with respect to good construction and land development practices.

(iv) Advise the applicant regarding drawings, specifications, cost estimates, and other related material which the applicant must submit to the Rural Development for review before the loan can be developed. Advise the applicant of the information necessary in the drawings, how the cost estimates should be prepared, the number of sets of drawings, specifications, and cost estimates required, and the necessity for furnishing such information promptly. Advise the applicant that Rural Development will provide appropriate specification forms, Form RD 1924-2, "Description of Materials," and Form RD 1924-3, "Service Building Specifications." The applicant may, however, use other properly prepared specifications.

(v) Advise the applicant regarding Publications, plans, planning aids, engineering data, and other technical advice and assistance available through local, state, and Federal agencies, and private individuals and organizations.

(vi) Review the information furnished by the applicant to determine the completeness of the plans, adequacy of the cost estimates, suitability and soundness of the proposed development.

(vii) When appropriate, offer suggestions as to how drawings and specifications might be altered to improve the facility and better serve the needs of the applicant. The County supervisor or District Director may assist the applicant in making revisions to the drawings. When appropriate, the contract documents will be forwarded to the State architect/engineer for review. For revisions requiring technical determinations that Rural Development is not able to make, the applicant will be requested to obtain additional technical assistance.

(viii) Provide the applicant with a written list of changes required in the contract documents. The applicant will submit two complete revised (as requested) sets of contract documents, for approval. On one set, the County Supervisor or District Director will indicate acceptance on each sheet of the drawings, and on the cover of the specifications and all other contract documents. At least the date and the initials of the approval official must be shown. On projects where a consulting architect or engineer has been retained, this acceptance will be indicated only after the State Director has given written authorization. The marked set of documents shall be available at the job site at all times for review by Rural Development. The second set will become part of the loan docket.

(ix) Review the proposed method of doing the work and determine whether the work can be performed satisfactorily under the proposed method.

(x) Instruct the applicant not to incur any debts prior to loan closing for materials or labor or make any expenditures for such purposes with the expectation of being reimbursed from loan funds.

(xi) Instruct the applicant not to commence any construction nor cause any supplies or materials to be delivered to the construction site prior to loan closing.

(xii) Under certain conditions prescribed in Exhibit H of this subpart, provide the applicant with a copy of the leaflet, "Warning - Lead-Based Paint Hazards," which is Attachment 1 of Exhibit H (available in any Rural Development office), and the warning sheet, "Caution Note on Lead-Based Paint Hazard," which is Attachment 2 of Exhibit H (available in any Rural Development office).

(g) Surplus structures and use or sale of timber, sand, or stone. In planning the developments, the applicant and the County Supervisor or District Director should, when practicable, plan to use salvage from old buildings, timber, sand, gravel, or stone from the property. The borrower may sell surplus buildings, timber, sand, gravel, or stone that is not to be used in performing planned development and use net proceeds to pay costs of performing planned development work. In such a case:

(1) An agreement will be recorded in the narrative of Form RD 1924-1 which as a minimum will:

§ 1924.5(g) (1) (Con.)

(i) Identify the property to be sold, the estimated net proceeds to be received, and the approximate date by which the property will be sold.

(ii) Provide that the borrower will deposit the net proceeds in the supervised bank account and apply any funds remaining after the development is complete as an extra payment on the loan, or in accordance with § 1965.13(f) of subpart A of Part 1965 of this chapter for farm program loans.

(2) The agreement will be considered by the Government as modifying the mortgage contract to the extent of authorizing and requiring the Government to release the identified property subject to the conditions stated in the agreement without payment or other consideration at the time of release, regardless of whether or not the mortgage specifically refers to Form RD 1924-1 or the agreement to release.

(3) If the RD loan will be secured by a junior lien, all prior lienholders must give written consent to the proposed sale and the use of the net proceeds before the loan is approved.

(4) Releases requested by the borrower or the buyer will be processed in accordance with applicable release procedures 7 CFR part 3550, as appropriate. (Revised 01-23-03, SPECIAL PN.)

(h) Review prior to performing development work. For the sole benefit of the Agency, prior to beginning development work, the County Supervisor or District Director will review planned development with the borrower. Adequacy of the drawings and specifications as well as the estimates will be checked to make sure the work can be completed within the time limits previously agreed upon and with available bids. Items and quantities of any materials the borrower has agreed to furnish will be checked and dates by which each item of development should be started will be checked in order that the work may be completed on schedule. If any changes in the plans and specifications are proposed, they should be within the general scope of the work as originally planned. Changes must be approved and processed in accordance with §1924.10 of this subpart. The appropriate procedure for performing development should be explained to the borrower. Copies of FmHA forms that will be used during the period of construction should be given to the borrower. The borrower should be advised as to the purpose of each form and at that period during construction each form will be used.

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(i) Time of starting development work. Development work will be started as soon as feasible after the loan is closed. Except in cases in which advance commitments are made in accordance with 7 CFR part 3550 or according to Section § 1924.13(e)(1)(vi)(A) or § 1924.13(e)(2)(ix)(A) of this subpart, no commitments with respect to performing planned development will be made by the Agency or the applicant before the loan is closed. The applicant will be instructed that before the loan is closed, debts should not be incurred for labor or materials, or expenditures made for such purposes, with the expectation of being reimbursed from loan funds except as provided in subpart A of part 1943 of this chapter, 7 CFR part 3550, and subpart E of part 1944 of this chapter. However, with the prior approval of the National Office, a State Supplement may be issued authorizing County Supervisors to permit applicants to commence welldrilling operations prior to loan closing, provided (1) it is necessary in the area to provide the water supply prior to loan closing, (2) the applicant agrees in writing to pay with personal funds all costs incurred if a satisfactory water supply is not obtained, (3) any contractors and suppliers understand and agree that loan funds may not be available to make the payment, (4) such action will not result under applicable State law in the giving of priority to mechanics and materialmen's liens over the later recorded RHS mortgage, and (5) RHS does not guarantee that the cost will be paid.  
(Revised 01-23-03, SPECIAL PN.)

§ 1924.6 Performing development work.

All construction work will be performed by one, or a combination, of the following methods: Contract, borrower, mutual self-help, or owner-builder. All development work must be performed by a person, firm or organization qualified to provide the service. Conditional commitment construction is covered under 7 CFR part 3550. (Revised 01-23-03, SPECIAL PN.)

(a) Contract method. This method of development will be used for all major construction except in cases where it is clearly not possible to obtain a contract at a reasonable or competitive cost. Work under this method is performed in accordance with a written contract.

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(1) Forms used. Form RD 1924-6, "Construction Contract," will be used for SFH construction. Other contract documents for more complex construction, acceptable to the loan approval official and containing the requirements of Subpart E of Part 1901 of this chapter, may be used provided they are customarily used in the area and protect the interest of the borrower and the Government with respect to compliance with items such as the drawings, specifications, payments for work, inspections, completion, nondiscrimination in construction work and acceptance of the work. If needed, the Office of the General Counsel (OGC) will be consulted. The United States (including Rural Development) will not become a party to a construction contract or incur any liability under it.

(2) Contract provisions. Contracts will have a listing of attachments and the provisions of the contract will include:

- (i) The contract sum.
- (ii) The dates for starting and completing the work.
- (iii) The amount of liquidated damages to be charged.
- (iv) The amount, method, and frequency of payment.
- (v) Whether or not surety bonds will be provided.
- (vi) The requirement that changes or additions must have prior written approval of Rural Development.

(3) Surety requirements.

(i) Unless an exception is granted in accordance with paragraph (a) (3) (iii) of this section or when interim financing will be used, surety that guarantees both payment and performance in the amount of the contract will be furnished when one or more of the following conditions exist:

- (A) The contract exceeds the applicable Rural Development Single Family Housing area loan limit as per 7 CFR 3550.63. (Loan limits are available at the local Rural Development field office.) (Revised 06-21-06, PN 399.)

(B) The loan approval official determines that a surety bond appears advisable to protect the borrower against default of the contractor.

(C) The applicant requests a surety bond.

(D) The contract provides for partial payments in excess of the mount of 60 percent of the value of the work in place.

(E) The contract provides for partial payments for materials suitably stored on the site.

(ii) If surety bonds are required the construction contract must indicate that the contractor will furnish properly executed surety bonds prior to the start of any work. Exhibits F and G of this subpart as revised by OGC if necessary to comply with local or state statutory requirements will be used as the forms of payment bond and performance bond to be provided. Unless noncorporate surety is provided, the surety bonds may only be obtained from a corporate bonding company listed on the current Department of the Treasury Circular 570 (published annually in the Federal Register), as holding a certificate of authority as an acceptable surety on Federal bonds and as legally doing business in the State where the land is located. Noncorporate sureties are not recommended and the State Director will be responsible for determining the acceptability of the individual or individuals proposed as sureties on the bonds. The State Director must determine that an individual or individuals proposed as sureties must have cash or other liquid assets easily convertible to cash in an amount at least equal to 25 percent more than the contract amount in order to be acceptable. The individual(s) will pledge such liquid assets in an amount equal to the contract amount. Fees charged for noncorporate sureties may not exceed fees charged by corporate sureties on bonds of equal amount and, in no case, may surety be provided by the applicant or any person or organization with an identity of interest in the applicant's operation. The United States (including Rural Development) will incur no liability related in any way to a performance or payment bond provided in connection with a

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construction contract. Rural Development will be named as co-obligee in the performance and payment bonds unless prohibited by state law.

(iii) When an experienced and reliable contractor cannot obtain payment and performance bonds meeting the surety requirements of paragraph (a) (3) (ii) of this section, the State Director may entertain a request from the applicant for an exception to the surety requirements. The applicant's request must specifically state why the proposed contractor is unable to obtain payment and performance bonds meeting the surety requirements, and why it is financially advantageous for the applicant to award the contract to the proposed contractor without the required bonds.

## §1924.6 (a) (3) (iii) (Con.)

If the applicant's request is reasonable and justified, and if the proposed contractor is reliable and experienced in the construction of projects of similar size, design, scope, and complexity, the State Director may grant an exception to the surety requirements for loans or grants within the State Director's approval authority and accept one or a combination of the following:

(A) An unconditional and irrevocable letter of credit issued by a lending institution which has been reviewed and approved by OGC. In such cases, the construction contract must indicate that the contractor will furnish a properly executed letter of credit from a lending institution acceptable to Rural Development prior to the start of any work. The letter of credit must retain in effect until the date of final acceptance of work by the owner and Rural Development. In addition, the letter of credit must stipulate that the lending institution, upon written notification by Rural Development of the contractor's failure to perform under the terms of the contract, will advance funds up to the amount of the contract (including all Rural Development approved contract change orders) to satisfy all prior debts incurred by the contractor in performing the contract and all funds necessary to complete the work. Payments may be made to the contractor in accordance with paragraph (a) (12) (i) (C) of this section as if full surety bonds were being provided.

(B) If a letter of credit satisfying the conditions of paragraph (A) cannot be obtained, the State Director may accept a deposit in the amount of the contract, into an interest or non-interest bearing supervised bank account. In such cases, the construction contract must indicate that the contractor will furnish the required deposit prior to the start of any work and that the funds shall remain on deposit until final acceptance of work by the owner and Rural Development. Payments may be made to the contractor in accordance with paragraph (a) (12) (i) (C) of this section as if full surety bonds were being provided.

(C) When the provisions of paragraphs (a) (3) (iii) (A) or (B) of this section can be met except that a surety bond, a letter of credit, and/or deposits are not obtainable in full amount of the contract, the State Director may accept an amount less than the full amount of the contract provided all of the following conditions are met:

(1) The contractor provides a surety bond, a letter of credit, or deposits in the greatest amount possible, and provides documentation indicating the reasons why amounts exceeding the proposed amount cannot be provided.

(2) The applicant agrees to the amount of the surety bond, letter of credit, or deposits proposed, and the State Director determines that the applicant has the financial capability to withstand any financial loss due to default of the contractor.

(3) In the opinion of the State Director, the proposed amount and the method of payment will provide adequate protection for the borrower and the Government against default of the contractor.

(4) The contract provides for partial payments not to exceed 90 percent of the value of the work in place for that portion of the total contract which is guaranteed by an acceptable surety bond, letter of credit, or deposits, and partial payments not to exceed 60 percent of the value of the work in place for that portion of the total contract which is not guaranteed by surety, letter of credit, or deposits.

Example:

Contractor has a surety bond which guarantees payment and performance in an amount of \$150,000 which represents 75 percent of the total contract amount of \$200,000. The contractor's first request for payment appears thus:

- value of work in place is \$10,000.
- payment for work guaranteed by surety=  
75 percent x \$10,000 x 90 percent = \$6,750
- Payment for work not guaranteed by surety=  
25 percent x \$10,000 x 60 percent = \$1,500
- Authorized payment = \$8,250

(Each partial payment shall reflect values for work guaranteed by surety, letter of credit, or deposits, and work not so guaranteed).

(iv) In cases where the contractor does not obtain payment and performance bonds in accordance with the surety requirements of paragraph (a)(3)(ii) of this section, or where an exception to the surety requirements is granted by the State Director, the following steps will be taken to protect the borrower and the government against latent obligations or defects in connection with the construction: (Revised 10-30-96, PN 267.)

(A) The contractor will furnish a properly executed corporate latent defects bond or a maintenance bond in the amount of 10 percent of the construction contract; or

(B) An unconditional and irrevocable letter of credit in the amount of 10 percent of the construction contract issued by a lending institution which has been reviewed and approved by OGC; or

(C) A cash deposit into an interest or non-interest bearing supervised bank account in the amount of 10 percent of the construction contract;

(D) The period of protection against latent obligations and/or defects shall be one year from the date of final acceptance of work by the owner and RHS;

(E) Final payment shall not be rendered to the contractor until the provisions of paragraphs (a)(3)(iv)(A), (B) or (C) of this section have been met;

(F) The contract will contain a clause indicating that the contractor agrees to provide surety or guarantee acceptable to the owner and RHS against latent obligations and/or defects in connection with the construction.

(4) Equal Opportunity. Section 1901.205 of subpart E of part 1901 of this chapter applies to all loans or grants involving construction contracts and subcontracts in excess of \$10,000.

(5) Labor Standards Provisions. The provisions of the Davis-Bacon and other related Acts, which are published in the Department of Labor regulations (29 CFR, parts 1, 3 and 5), will apply when the contract involves either LH grant assistance, or 9 or more units in a project being assisted under the HUD Section 8 housing assistance payment program for new construction. (Revised 10-30-96, PN 267.)

(6) Historical and archaeological preservation. The provisions of subpart F of part 1901 of this chapter concerning the protection of historical and archaeological properties will apply to all construction financed, in whole or in part, by RHS loans and grants. These provisions have special applicability to development in areas designated by NRCS as Resource Conservation and Development (RC&D) areas. (See part 1942, subpart I of this chapter)  
(Revised 10-30-96, PN 267.)

(7) Air and water acts. Under Executive Order 11738, all loans or grants involving construction contracts for more than \$100,000 must meet all the requirements of Section 114 of the Clean Air Act (42 U.S.C. 7414) and section 308 of the Water Pollution Control Act (33 U.S.C., section 1813). The contract should contain provisions obligating the contractor as a condition for the award of the contract as follows:

(i) To notify the owner of the receipt of any communication from Environmental Protection Agency (EPA) indicating that a facility to be utilized in the performance of the contract is under consideration to be listed on the EPA list of Violating Facilities. Prompt notification is required prior to contract award.

(ii) To certify that any facility to be utilized in the performance of any nonexempt contractor subcontract is not listed on the EPA list of Violating Facilities as of the date of contract award.

(iii) To include or cause to be included the above criteria and requirements of paragraphs (a)(7)(i) and (ii) of this section in every nonexempt subcontract, and that the contractor will take such action as the Government may direct as a means of enforcing such provisions.

(8) Architectural barriers. In accordance with the Architectural Barriers Act of 1968, (Pub. L. 90-480) as implemented by the General Services Administration regulations (41 CFR 101-19.6) and section 504 of the Rehabilitation Act of 1973 (Pub. L. 93-112) as implemented by 7 CFR, parts 15 and 15b, all facilities financed with RHS loans and grants and which are accessible to the public or in which people with disabilities may be employed or reside must be developed in compliance with this Act. Copies of the Act and Federal accessibility design standards may be obtained from the Executive Director, Architectural and Transportation Barriers Compliance Board, Washington, D.C. 20201. (Revised 10-30-96, PN 267.)

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(9) National Environmental Policy Act. The provisions of Subpart G of Part 1940 of this chapter concerning environmental requirements will apply to all loans and grants including those being assisted under the HUD Section 8 housing assistance payment program for new construction.

(10) Obtaining bids and selecting a contractor.

(i) The applicant may select a contractor and negotiate a contract or contact several contractors and request each to submit a bid. For complex construction projects, refer also to §1924.13 (e) of this subpart.

(ii) When a price has already been negotiated or an applicant and a contractor, the County Supervisor, District Director or other appropriate Rural Development official will review the proposed contract. If the contractor is qualified to perform the development and provide a warranty of the work and the price compares favorably with the cost of similar construction in the area, further negotiation is unnecessary. If the Rural Development official determines the price is too high or otherwise unreasonable, the applicant will be requested to negotiate further with the contractor. If a reasonable price cannot be negotiated or if the contractor is not qualified, the applicant will be requested to obtain competitive bids.

(iii) When an applicant has a proposed development plan and no contractor in mind, competitive bidding will be encouraged. The applicant should obtain bids from as many qualified contractors, dealers or tradespeople as feasible depending on the method and type of construction.

(iv) If the award of the contract is by competitive bidding, Form RD 1924-5, "Invitation for Bid (Construction Contract)," or another similar invitation bid form containing the requirements of Subpart E of Part 1901 of this chapter, may be used. All contractors from whom bids are requested should be informed of all conditions of the contract including the time and place of opening bids. Conditions shall not be established which would give preference to a specific bidder or type of bidder. When applicable, copies of Forms RD 1924-6 and RD 400-6, "Compliance Statement," also should be provided to the prospective bidders.

(11) Awarding the contract. The borrower, with the assistance of the County Supervisor or District Director, will consider the amount of the bids or proposals, and all conditions which were listed in the "Invitation for Bid." On the basis of these considerations, the borrower will select and notify the lowest responsible bidder.

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(i) Before work commences, the County Supervisor, District Director or other Rural Development employee having knowledge of contracts and construction practices will hold a preconstruction conference with the borrower(s), contractor and architect/engineer (if applicable). The purpose of the conference is to reach a mutual understanding of each party's responsibilities under the terms and conditions of the contract documents and the loan agreement during the construction and warranty periods. Form RD 1924-16, "Record of Preconstruction Conference," may be used as a guide for an agenda.

(ii) A summary of the items covered will be entered in the running case record.

(iii) The contract will then be prepared, signed and copies distributed in accordance with the FMI for Form RD 1924-6.

(iv) After a borrower/contractor's contract or subcontract in excess of \$10,000 is received in the Rural Development County or District Office, the responsible Rural Development official will send within 10 calendar days of the date of the contract or subcontract, a report similar in form and content to Exhibit C of Subpart E of Part 1901 of this chapter to the Area Director, Office of Federal Contract Compliance Programs, U. S. Department of labor, at the applicable address listed in Exhibit E, Subpart E of Part 1901 of this chapter. The report must contain, at least, the following information: Contractor's name, address and telephone number; employer's identification number; amount, starting date and planned completion date of the contract; contract number; and city and DOL region of the contract site. The information for this report should be obtained from the contractor when the contract is awarded.

(12) Payments for work done by the contract method.

(i) Payments will be made in accordance with one of the following methods unless prohibited by state statute, in which case the State Director shall issue a State Supplement to this section:

(A) The "One Lump-Sum" payment method will be used when the payment will be made in one lump-sum for the whole contract.

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(B) The "Partial payments not to exceed 60 percent of the value of the work in place" payment method will be used when the contractor does not provide surety bond, a letter of credit, or deposits.

(C) The "Partial payments in the amount of 90 percent of the value of the work in place and of the value of the materials suitably stored at the site" payment method will be used when the contractor provides a surety bond equal to the total contract amount.

(D) The "Partial payments which reflect the portions of the contract amount which is guaranteed" method will be used when the contractor provides surety bonds, a letter of credit, or deposits less than the total amount of the contract in accordance with the provisions of paragraph (a) (3) (iii) (C) of this section.

(ii) When Form RD 1924-6 is used, the appropriate payment clause will be checked and the other payment clauses not used will be effectively crossed out.

(iii) When a contract form other than Form RD 1924-6 is used, the payment clause must conform with paragraph (a) (12) (i) of this section and the appropriate clause as set forth in Form RD 1924-6.

(iv) The borrower and Rural Development must take precautionary measures to see that all payments made to the contractor are properly applied against bills for materials and labor procured under the contract. Prior to making any partial payment on any contract where a surety bond is not used, the contractor will be required to furnish the borrower and the Rural Development with a statement showing the total amount owed to date for materials and labor procured under the contract. The contractor also may be required to submit evidence showing that previous partial payments were applied properly. When the borrower and the County supervisor or District Director have reason to believe that partial payments may not be applied properly, checks may be made jointly to the contractor and persons who furnished materials and labor in connection with the contract.

(v) When partial payments are requested of the contractor and approved by the owner, the amount of the partial payment will be determined by one of the following methods:

(A) Based upon the percentage completed as shown on a recently completed and properly executed Form RD 1924-12, "Inspection Report."

(B) When the structure will be covered by an insured 10-year warranty, the insurer's construction inspector must provide Rural Development with any available copies of instruction reports showing percentage of completion immediately after the inspections are completed. To make partial payments when copies of inspection reports are not available, the responsible Rural Development official will make the inspections or will be guided by the provisions of §1924.6 (a) (12) (v) (C) of this subpart. If further assistance is deemed necessary to justify partial payments, the Rural Development official may make onsite inspections or require additional information.

(C) Based upon an application for payment containing an estimate of the value of work in place which has been prepared by the contractor and accepted by the borrower and Rural Development. When the contract provides for partial payments for materials satisfactorily stored at the site, the application for payment may include these item. Prior to receiving the first partial payment, the contractor should be required to submit a list of major subcontractors and suppliers and a schedule of prices or values of the various phases of the work aggregating the total sum of the contract such as excavation, foundations, framing, roofing, siding, mill work, painting, plumbing, heating, electric wiring, etc., made out in such form as agreed upon by the borrower, Rural Development, and the contractor. In applying for payments, the contractor should submit a statement based upon this schedule. See Exhibit A of this subpart for guidance in reviewing the contractor's schedule of prices and estimating the value of the work in place.

(vi) Final payment.

(A) When the structure will be covered by an insured 10-year warranty, the insurer must provide an insured 10-year warranty policy (or a binder if the policy is not available) before final payment is made to the builder.

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(B) Final payment of the amount due on the contract or disbursement of the Rural Development loan funds where an interim loan was used will be made only upon completion of the entire contract, final inspection by Rural Development, acceptance of the work by Rural Development and the borrower, issuance of any and all final permits and approvals for the use and occupancy of the structure by any applicable state and local governmental authorities, and compliance by the contractor with all terms and conditions of the contract. In the event the work of construction is delayed or interrupted by reason of fire, flood, unusually stormy weather, war, riot, strike, an order, requisition or regulation of any governmental body (excluding delays related to possible defects in the contractor's performance and excluding delays caused by the necessity of securing building permits or any required inspection procedures corrected therewith) or other contingencies reasonably unforeseeable and beyond the reasonable control of the contractor, then with the written consent of Rural Development, the date of completion of the work may be extended by the owner by the period of such delay, provided that the contractor shall give the owner and Rural Development written notice within 72 hours of the occurrence of the event causing the delay or interruption.

(C) Prior to making final payment on the contract when a surety bond is not used or disbursing the Rural Development loan funds when an interim loan was used, Rural Development will be provided with a Form RD 1924-9, "Certificate of Contractor's Release," and Form RD 1924-10, "Release by Claimants," executed by all persons who furnished materials or labor in connection with the contract. The borrower should furnish the contractor with a copy of the "Release by Claimants" form at the beginning of the work in order that the contractor may obtain these releases as the work progresses.

(1) If such releases cannot be obtained, the funds may be disbursed provided all the following can be met:

(i) Release statements to the extent possible are obtained;

(ii) The interests of Rural Development can be adequately protected and its security position is not impaired; and

(iii) Adequate provisions are made for handling the unpaid account by withholding or escrowing sufficient funds to pay any such claims or obtaining a release bond.

(2) The State Director may issue a State Supplement which will:

(i) Not require the use of Form RD 1924-10. If, under existing state statutes, the furnishing of labor and materials gives no right to a lien against the property, or

(ii) Provide an alternative method to protect against mechanic's and materialmen's liens. In this case, the use of Form RD 1924-10 is optional.

(b) Borrower method. The borrower method means performance of work by or under the direction of the borrower, using one or more of the ways specified in this paragraph. Development work may be performed by the borrower method only when it is not practicable to do the work by the contract method; the borrower possesses or arranges through an approved self-help plan for the necessary skill and managerial ability to complete the work satisfactorily; such work will not interfere seriously with the borrower's farming operation or work schedule, and the County Office caseload will permit a County Supervisor to properly advise the borrower and inspect the work.

(1) Ways of performing the work. The borrower will:

(i) Purchase the material and equipment and do the work.

(ii) Utilize lump-sum, agreements for (A) minor items or minor portions of items of development, the total cost of which does not exceed \$5,000 per agreement, such as labor, material, or labor and material for small service buildings, repair jobs, or land development; or (B) material and equipment which involve a single trade and will be installed by the seller, such as the purchase and installation of heating facilities, electric wiring, wells, painting, liming, or sodding. All agreements will be in writing, however, the County Supervisor may make an exception to this requirement when the agreement involves a relatively small amount.

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(2) Acceptance and storage of material on site. The County Supervisor will advise the borrower that the acceptance of material as delivered to the site and the proper storage of material will be the borrower's responsibility.

(3) Payment for work done by the borrower method.

(i) Payments for labor. Before the County Supervisor countersigns checks for labor, the borrower must submit a completed Form RD 1924-11, "Statement of Labor Performed," for each worker performing labor during the pay period. Ordinarily, checks for labor will be made payable to the workers involved. However, under justifiable circumstances, when the borrower has paid for labor with personal funds and has obtained signatures of workers on Form RD 1924-11 as having received payment, the County Supervisor may countersign a check made payable to the borrower for reimbursement of these expenditures. Under no circumstances will the County Supervisor permit loan funds or funds withdrawn from the supervised bank account to be used to pay the borrower for the borrower's own labor or labor performed by any member of the borrower's household.

(ii) Payments for equipment, material or lump-sum agreements.

(A) Before countersigning checks for equipment or materials, the County Supervisor must normally have an invoice from the seller covering the equipment or materials to be purchased. When an invoice is not available at the time the check is issued, an itemized statement of the equipment or materials to be purchased may be substituted until a paid invoice from the seller is submitted, at which time the prepurchase statement may be destroyed.

(B) When an invoice is available at the time the check is drawn, the check will include a reference to the invoice number, the invoice date if unnumbered and, if necessary, the purpose of the expenditure.

(C) The check number and date of payment will be indicated on the appropriate Form RD 1924-11, invoice, itemized statement of equipment or materials and/or lump-sum agreement.

(D) Ordinarily, checks for equipment or materials will be made payable to the seller. Under justifiable circumstances, when the borrower has paid for equipment or materials with personal funds and furnished a paid invoice, the County Supervisor may countersign a check made payable to the borrower for reimbursement of these expenses.

(E) When an invoice includes equipment or materials for more than one item of development, the appropriate part of the cost to be charged against each item of development will be indicated on the invoice by the borrower, with the assistance of the County Supervisor.

(F) Payment made under lump-sum agreements will be made only when all items of equipment and materials have been furnished, labor has been performed as agreed upon, and the work has been accepted by the borrower and the Agency.

(G) Each paid Form RD 1924-11, invoice, itemized statement for equipment or material and/or lump-sum agreement will be given to the borrower in accordance with the FMI.

(c) Mutual self-help method. The mutual self-help method is performance of work by a group of families by mutual labor under the direction of a construction supervisor, as described in 7 CFR part 3550. The ways of doing the work, buying materials, and contracting for special services are like those used for the borrower method. Materials can be bought jointly by the group of families, but payments will be made individually by each family. In the case of RH loans to families being assisted by Self-Help Technical Assistance (TA) grants in accordance with subpart I of part 1944 of this chapter, the County Supervisor may countersign checks for materials and necessary contract work made payable directly to the TA grantee, provided the District Director determines that: (Revised 01-23-03, SPECIAL PN.)

(1) The grantee acts in the same capacity as a construction manager in the group Purchase of material and services.

(2) The grantee has an adequate bookkeeping system approved by the District Director to assure that funds in each RH account are properly distributed and maintained.

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(3) The grantee receives no compensation in the way of profit or overhead for this service and all discounts and rebates received in connection with the purchase of materials or services are passed on to the participating families.

(4) The grantee has a record-keeping system which shows that the costs of the materials and services were prorated to each borrower's account in relation to the actual material and service used by each borrower.

(d) Owner-builder method. This method of construction applies only to RRH loans made under Subpart E of Part 1944 of this chapter. Regulations governing this method are found at § 1924.13(e) (2) of this subpart.

§ 1924.7 [Reserved]

§ 1924.8 Development work for modular/panelized housing units.

(a) Exhibit B of this subpart applies to all loans involving modular/panelized housing units.

(b) Complete drawings and specifications will be required as prescribed in Exhibit C of this subpart. Each set of drawings will contain the design of the foundation system required for the soil and slope conditions of the particular site on which the modular/panelized house is to be placed.

(c) The manufacturer will provide a certification (Exhibit B, Attachment 5 of this subpart), stating that the building has been built substantially in accordance with the drawings and specifications. The builder will also provide a certification that the onsite work complies with drawings, specifications, and the applicable development standard (Exhibit B, Attachment 5 of this subpart).

(d) Responsibility for field inspections will be in accordance with §1924.9 (a) of this subpart. Frequency and timing of inspections will be in accordance with § 1924.9(a) of this subpart, except that the Stage 2 inspection should be made during the time and in no case later than two working days after the crews commence work on the site and the house is being erected or placed on the foundation, to determine compliance with the accepted drawings and specifications.

(e) Periodic plant inspections will be performed in accordance with paragraphs II and III Exhibit B of this subpart. Agency employees responsible for inspections in the area in which the manufacturing plant or material supply yard is located will perform such inspections as deemed necessary under paragraph III of Exhibit B of this subpart.

(1) Plant inspections will be made if the type construction method used could restrict adequate inspections on the building site.

(2) Plant inspections will be made as often as necessary; however, after initial inspection and acceptance of the unit, only when it appears advisable to ascertain the performance and continuing stability of accepted materials and construction.

(f) Only one contract will be accepted for the completed house on the site owned or to be bought by the borrower. The manufacturer of the house or the manufacturer's agent may be the prime contractor for delivery and erection of the house on the site or a builder may contract with the borrower for the complete house in place on the site. Such contracts should provide that payments will be made only for work in place on the borrower's site.

(g) Payments for modular/panelized units will be made in accordance with the terms of the contract and in compliance with § 1924.6(a)(12) of this subpart.

§ 1924.9 Inspection of development work.

The following policies will govern the inspection of all development work.

(a) Responsibility for inspection. The County Supervisor or the District Director, accompanied by the borrower when practicable, will make final inspection of all development work and periodic inspections as appropriate to protect the security interest of the government. In this respect, inspections other than final inspections, may be conducted by other qualified persons as authorized in paragraph (d) of this section, in 7 CFR part 3550, in RD Instruction 2024-A (available in any Rural Development Office), and as authorized under other agreements executed by, or authorized by, the National Office. The borrower will be responsible for making inspections necessary to protect the borrower's interest. Agency inspections are not to assure the borrower that the house is built in accordance with the plans and specifications. The inspections create or imply no duty or obligation

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to the particular borrower. Agency inspections are for the dual purpose of determining that the Agency has adequate security for its loan and is achieving the statutory goal of providing adequate housing. If difficult technical problems are encountered, the County Supervisor or District Director should request the assistance of the State Office or a qualified technician from SCS or the State University Cooperative Extension Service. (Revised 01-23-03, SPECIAL PN.)

(b) Frequency of inspections. The County Supervisor or District Director will inspect development work as frequently as necessary to assess that construction and land development conforms to the drawings and specifications. The final inspection will be made at the earliest possible date after completion of the planned development. When several major items of development are involved, final inspection will be made upon completion of each item.

- (1) For new buildings and additions to existing buildings, inspections will be made at the following stages of construction and at such other stages of construction as determined by the County Supervisor or District Director except as modified by paragraph (b) (3) of this section.

(i) Stage 1. Customarily, the initial inspection in construction cases is made just prior to or during the placement of concrete footings or monolithic footings and floor slabs. At this point, foundation excavations are complete, forms or trenches and steel are ready for concrete placement and the subsurface installation is roughed in. However, when it is not practicable to make the initial inspection prior to or during the placement of concrete, the County Supervisor or District Director will make the initial inspection as soon as possible after the placement of concrete and before any backfill is in place.

(ii) Stage 2. The Stage 2 inspection will be made when the building is enclosed, structural members are still exposed, roughing in for heating, plumbing, and electrical work is in place and visible, and wall insulation and vapor barriers are installed. Customarily, this is prior to installation of brick veneer or any interior finish which could include lath, wallboard and finish flooring.

(iii) Stage 3. The final inspection will be made when all on-site and off-site development has been completed and the structure is ready for occupancy or its intended use.

(2) For rehabilitation of existing buildings, inspections will be made in accordance with paragraphs (b) (1) (ii) and (iii) of this section, and at such other stages of construction to assure that construction is being performed in a professional manner and in accordance with the CFSA and/or RHCDS approved drawings and specifications.

(3) For new construction when the structure will be covered by an insured 10-year warranty plan as described in Exhibit L of this subpart, only the final inspection is required, except in cases when partial payments are required then the provisions of § 1924.6(a) (12) (v) of this subpart will be followed.

(4) Arrangements should be made to have the borrower join the County Supervisor or the District Director in making periodic inspections as often as necessary to provide a mutual understanding with regard to the progress and performance of the work.

(5) The borrower should make enough periodic visits to the site to be familiar with the progress and performance of the work, in order to protect the borrower's interest. If the borrower observes or otherwise becomes aware of any fault or defect in the work or nonconformance with the contract documents, the borrower should give prompt written notice thereof to the contractor with a copy to the County Supervisor or District Director responsible for servicing the type of loan or grant involved.

(6) The borrower should, when practicable, join the County Supervisor or District Director in making all final inspections.

(7) When irrigation equipment and materials are to be purchased and installed, a performance test under actual operating conditions by the person or firm making the installation should be required before final acceptance is made. The test should be conducted in the presence of the borrower, a qualified technician, and, when practicable, the County Supervisor or District Director. If the CFSA official is not present at the performance test, he or she should request the technician to furnish a report as to whether or not the installation meets the requirements of the plans and specifications.

## §1924.9 (b) (Con.)

(8) For irrigation and drainage construction or any dwelling construction where part or all of the work will be buried or backfilled, interim inspections should be made at such stages of construction that compliance with plans and specifications can be determined.

(c) Recording inspections and correction of deficiencies. All periodic and final inspections made by the County Supervisor or District Director will be recorded on Form RD 1924-12 in accordance with the FMI. The County Supervisor or District Director will be responsible for following up on the correction of deficiencies reported on Form RD 1924-12. When an architect/ engineer is providing services on a project, the District Director should notify the architect/engineer immediately of any fault or defect observed in the work or of any nonconformment with the contract document. If the borrower or the contractor refuses to correct the deficiencies, the District Director will report the facts to the State Director who will determine the action to be taken. No inspection will be recorded as a final inspection until all deficiencies or nonconforming conditions have been corrected.

(d) Acceptance by responsible public authority. When local (city) county, state, or other public authority) codes and ordinances require inspections, final acceptance by the local authority having jurisdiction will be required prior to final inspection or acceptance by Rural Development.

(e) Acceptance by project architect. If architectural services pursuant to §1924.13 (a) of this subpart have been obtained, final acceptance by the project architect pursuant to §1924.13 (a) (5) (v) of this subpart will be required prior to acceptance by Rural Development.

§1924.10 Making changes in the planned development.

The borrower may request changes in the planned development in accordance with this section.

(a) Authority of the County Supervisor. The County Supervisor is authorized to approve changes in the planned development involving loans and grants within the County Supervisor's approval authority provided:

(1) The change is for an authorized purpose and within the scope of the original proposal.

(2) Sufficient funds are deposited in the borrower's supervised bank account or with the interim letter, as appropriate, to cover the contemplated changes when the change involves additional funds to be furnished by the borrower.

(3) The change will not adversely affect the soundness of the operation or Rural Development's security. If uncertain as to the probable effect the change would have on the soundness of the operation or Rural Development security, the County Supervisor will obtain advice from the District Director on whether to approve the change.

(4) If a surety bond has been provided on the full amount of the construction contract, the aggregate amount of all contract change orders on Form RD 1924-7, "Contract Change Order," or other acceptable form will not exceed 20 percent of the original contract amount. Change orders for contracts on which a surety bond has been provided which increases the original contract amount by more than 20 percent may only be approved if additional surety is provided in the full revised amount of the contract. For purposes of this paragraph, letters of credit and deposits are not considered surety.

(5) Change orders for contracts on which letters of credit or deposits have been provided on the full amount of the contract which will increase the original contract amount are approved only if additional letters of credit or deposits are provided in the full revised amount of the contract.

(6) Modifications have been certified in accordance with §1924.5 (f) (1) (iii) or certification has been waived in accordance with §1924.5 (f) (1) (iii) (C) of this subpart.

(b) Authority of the District Director. The District Director is authorized to approve changes in the developing planned with RRH, RCH, and RHS loans and LH loans and grants within the District Director's approval authority, provided the conditions in §1924.10 (a) have been met. For such loans in excess of the District Director's approval authority, the borrower's request with the District Director's recommendation will be forwarded to the State Director for consideration.

§1924.10 (Con.)

(c) Recording changes in the planned development.

(1) Changes should be accomplished only after Rural Development written approval. Changes will not be included in payment requests until approved by the borrower; the contractor, if applicable; the architect/engineer, if applicable; and the Rural Development loan approval official. Examples of changes requiring documentation are:

(i) Any changes in labor and materials and their respective costs.

(ii) Changes in facility design.

(iii) Any decrease or increase in unit-price on final measurements that are different from those shown in the bidding schedule.

(iv) Any increase or decrease in the time to complete the project.

(2) All changes shall be recorded in chronological order as follows:

(i) Contract method. Changes shall be numbered in sequence as they occur using Form RD 1924-7 with necessary attachments.

(ii) Borrower method. An increase or decrease in the cash cost, extension of time, transfer of funds between items, or an addition or deletion of items of development, will be summarized on the front of Form RD 1924-1 by striking through the original figures on items and writing in the changes. Changes made in the "Development Plan" in the working drawings, or in the plans and specifications will be dated and initialed by all parties.

(iii) Mutual self-help method. [See paragraph (c) (2) (ii) of this section.]

(iv) Owner-builder method. [See paragraph (c) (2) (i) of this section.]

(3) All changes in facility design and/or materials must be certified in accordance with §1924.5 (f) (1) (iii) of this subpart.

§1924.11 District Director's review of incomplete development.

During monthly District Office work organization meetings and during regular visits to the County Office, the District Director will review the progress that is being made in completing development financed with loans within the district Director's and County Supervisor's responsibility.

(a) Once each year the District Director will make a comprehensive review of all development work not completed within the time scheduled. For incomplete development financed with loan or grant funds within the responsibility of the District Director, the District Director will take the necessary actions to assure that the borrower or grantee completes the planned development. For incomplete development financed with loan or grant funds within the responsibility of the County Supervisor, the District Director will give the necessary direction to the County Supervisor to assure completion of the work. In connection with these responsibilities, the District Director will consider:

- (1) The current farm and home operations with respect to the need for the development as originally planned.
- (2) Revisions to the development plan.
- (3) Funds remaining in the supervised bank account.
- (4) Need for additional funds.
- (5) Personal funds that could be furnished by the borrower.
- (6) Estimated completion dates.
- (7) The borrower's attitude with respect to completing the development.

(b) After a complete review of the status of development in both the district and County Offices has been made, the District Director will make a written report to the State Director which will include observations and recommendations regarding incomplete development. The report may be included in the District Director's regular report, and will include:

- (1) The number of cases in which borrowers have not completed their development within 9, 15 or 24 months when authorized, and also the number of cases in which funds have been exhausted and the work is incomplete.

§1924.11 (b) (Con.)

(2) The number of borrowers who have not completed their development within 3 years from the loan closing, and indicate the action that was taken in each such case.

(c) If the borrower has not completed development work within 3 years after the date of loan closing and the District Director has determined that the borrower cannot or will not complete the development, the District Director will so indicate on Form RD 1924-1 and request the State Director to withdraw, for application on the loan, any unused development funds remaining in the borrower's supervised bank account, if the borrower will not sign a check for a refund to the loan account.

§1924.12 Warranty of development work.

(a) Form RD 1924-19, "Builder's Warranty," or an insured 10-year home warranty as described in Exhibit L of this subpart, and normal trade warranties on items of equipment will be issued to the borrower at the completion of new building construction, dwelling rehabilitation by the contract method, all cases of newly completed and previously unoccupied dwellings or construction under conditional commitments issued to builders and sellers.

(b) If the warranty is not an insured 10-year warranty, a completed Form RD 1924-19 with warranty protection for 1 year, must be provided by the builder upon final acceptance of the work by the owner and Rural Development. If an insured 10-year warranty is provided, the requirements of Exhibit L of this subpart apply, and a copy of the warranty insurance policy or a binder must have been received by Rural Development prior to disbursement of the final payment to the builder.

(c) If, for some reason, the warranty insurance policy cannot be issued, the contractor will be required to execute Form RD 1924-19 and the case will be forwarded to the State Director for consideration of debarment under the provisions of Subpart M of Part 1940 (available in any Rural Development office). The County Supervisor will assist the borrower to the extent necessary under the provisions of the warranty and Subpart F of Part 1924 of this chapter. (Revised 4-11-89, SPECIAL PN)

(d) The County Supervisor will take the following action prior to the expiration of the first year of the warranty period:

RD Instruction 1924-A  
§1924.12 (d) (Con.)

(1) As soon as the warranty has been executed, the follow-up date for sending Form RD 1924-21, "Notice of Expiration of First Year of Warranty," which will be used for the 1 year warranty or the first year of the insured 10-year warranty, will be posted to the "Servicing and Supervision" section of the Management System card.

(2) Form RD 1924-21, is provided for use in notifying the borrower of the expiration date of the first year of the warranty. This letter will be mailed to the borrower early in the second month preceding the expiration date of the first year of the warranty period.

(3) If the County Supervisor or District Director does not hear from the borrower within 30 days, it can reasonably be assumed that no complaint exists or that any complaint has been satisfied unless information to the contrary has been received.

(4) If the borrower notifies Rural Development that any complaint has not been satisfied, an onsite inspection shall be made as early as possible, but not later than 1 month preceding the expiration date of the first year of the warranty. The results of the inspection will be recorded on Form RD 1924-12. If the borrower has complaints, the case should be handled in accordance with the provisions of Subpart F of Part 1924 of this chapter, or as otherwise provided in this subpart.

§1924.13 Supplemental requirements for more complex construction.

This section includes additional provisions that apply to planning and conduct of construction work on all multiple family housing projects and other projects that are more extensive in scope and more complex in nature than individual housing units or farm buildings. This section will apply in addition to all other requirements contained elsewhere in this subpart.

(a) Architectural services. Complete architectural services, as defined in §1924.4 (o) (1) of this subpart are recommended on all projects. They are required for projects involving an LH grant and for all loans for RRH, RCH, and LH projects consisting of more than 4 units unless prior consent to making an exception to the requirements for complete architectural services is obtained from the National Office. If the applicant or contractor is an architect or organization with architectural capability, the applicant must, nevertheless, hire an independent qualified architect or architectural firm to inspect the construction work and perform other needed services during the construction and warranty phases. See Guide 4, Attachment 1, "Attachment to AIA Document - Standard Form of Agreement Between Owner and Architect," for further information (available in any Rural Development office).

§1924.13 (a) (Con.)

(1) Exception. Any request for National Office consent to an exception being made for complete architectural services should include the proposed drawings and specifications, method of providing specific services, the comments and recommendations of the Rural Development State Architect, and any other pertinent information. The State Director must determine that any services for which an exception is requested can be performed by qualified State or District Office staff members.

(2) Selecting the architect. The applicant is responsible for selecting the architect. The District Director with the advice of the State architect/engineer should discuss with the applicant the selection of the architect for the job as early as possible to assist in the site selection and participate in early consultations regarding project scope and design.

(3) Architectural fees. Fees for architectural services shall not exceed the fee ordinarily charged by the profession for similar work when Rural Development financing is not involved. The fee should cover only the architectural services rendered by the architect. The reduction or elimination of any services described in paragraph (a)(5) of this section shall be directly reflected in the fee. Fees for special services rendered by the architects, such as the packaging of the loan application or additional nonarchitectural services, will not be authorized to be paid with loan funds.  
(Revised 03-16-94, SPECIAL PN.)

(4) Agreement between borrower and architect. The borrower and architect will execute a written agreement. The agreement must provide:

(i) The services listed in paragraph (a)(5) of this section.

(ii) The amount of the fee and how it will be determined and paid.

(iii) that the agreement and any amendments to the agreement shall not be in full force and effect until concurred with in writing by the State Director or the State Director's delegate, and it will contain the following provision:

Rural Development, as potential lender or insurer of funds to defray the cost of this agreement and without liability for any payments thereunder, hereby concurs in the form, content and the execution of this agreement.

Date \_\_\_\_\_

\_\_\_\_\_  
Rural Development Approval Official

\_\_\_\_\_  
Title

(5) Specific services. Architectural services will include six consecutive phases as follows:

(i) Schematic design phase. The architect will:

(A) Consult with the applicant to obtain available information pertinent to the project requirements.

(B) Consult with Rural Development State architect/engineer about Rural Development requirements and procedures.

(C) Assist in preparing the project design after analyzing engineering and survey data on the site selected by applicant.

(D) Prepare schematic design studies consisting of drawings and other documents illustrating the scale and relationship of project components for the applicant's approval.

(E) Submit estimates of current development costs based on current area, volume, or other unit costs.

(F) When the applicant and Rural Development have accepted the schematic design studies and estimated development costs, the project architect may be authorized to proceed with the next phase.

§1924.13 (a) (5) (Con.)

(ii) Design development phase. The architect will:

(A) Prepare the design development exhibits from the accepted schematic design studies for approval by the applicant. These exhibits should consist of drawings and other documents to fix and describe the size and character of the entire project as to structural, mechanical, and electrical systems, materials, and other essentials as appropriate.

(B) Submit a further statement of probable construction cost.

§ 1924.13(a)(5)(ii) (Con.)

(C) Obtain applicant and Rural Development approval of drawings, specifications, and authorization to proceed with next phase.

(iii) Construction documents phase. The architect will:

(A) Prepare the working drawings and specifications from the approved design development drawings and set forth in detail the requirements for the construction of the entire project in accordance with applicable regulations and codes; for example, necessary bidding information, assistance in preparing bidding forms, conditions of the construction contract, and the form of agreement between applicant/owner and contractor.

(B) Submit a final and more comprehensive statement of probable development cost. It should show a breakdown of the estimated total development cost of the project and the various trades in enough detail for an adequate review.

(C) Obtain the acceptance of the applicant and Rural Development for contract documents, including approval of the final drawings and specifications and authorization to proceed.

(D) Discuss with the applicant various items as they develop.

(iv) Bidding or negotiation phase. The architect will, as appropriate, for a bid or negotiated contract:

(A) Assist in review and selection of bidders and submission of contract documents to selected bidders.

(B) Assist in the interpretation of drawings and specifications, and other contract documents.

(C) Receive and tabulate all bids.

(D) Review the bids and the negotiated proposals and assist in the award and preparation of construction contracts.

(v) Construction phase. This phase includes the administration of the construction contract. It will commence with the award of the construction contract and end when the borrower makes final payment to the contractor. The architect will:

RD Instruction 1924-A  
§ 1924.13(a) (5) (v) (Con.)

(A) Attend the preconstruction conference. Advise and consult with the borrower (or the borrower's representative) and issue the borrower's instructions to the contractor.

(B) Prepare change orders.

(C) Keep construction accounts and work as the general administrator of the Project during construction.

(D) Interpret the contract documents and have the authority to reject all work and materials which do not costly.

(E) Review and approve shop drawings, samples, and other submissions of the contractor for conformance with the design concept and for compliance with the contract documents.

(F) Conduct periodic inspections of all phases of construction to determine compliance with the contract documents and certify as to the amount of work that is in place and materials suitably stored on site for partial payment estimates. These inspections will be augmented, when necessary, by inspections performed by structural, mechanical, and electrical representatives. Periodic inspections should be made as frequently as is necessary to verify that the work conforms with the intent of the contract documents and that a high quality of workmanship is maintained. The State Director may require a full-time project representative on projects with a total development cost of \$750,000 or more, when in the opinion of the State Director there is a need for such representative, and the State Director states the reasons for such need to the borrower.

(G) Determine, based on the inspections, the dates of substantial completion and final completion; receive on the borrower's behalf all written guarantees and related documents assembled by the contractor; and issue a final certificate for payment.

§ 1924.13(a)(5) (Con.)

(vi) Warranty phase. The architect will advise and consult with the borrower, as the borrower's representative, about items to be corrected within the warranty period. The architect will accompany the Rural Development representative during the inspection required one month prior to expiration of the warranty period.

(b) Other professional services. The State Director, on the recommendation of the State architect/engineer, may request that additional professional services be provided.

(1) Professional services typically include soils engineering, structural engineering, civil engineering, surveying, land planing, or professional cost estimation or certification. Fees for these services may be paid directly by the borrower or by the architect as reimbursable expenses.

(2) When a project representative is utilized, unless otherwise agreed, the representative will be provided by the consulting architect/engineer. Prior to the preconstruction conference, the architect/engineer will submit a resume of qualifications of the project representative to the applicant and to Rural Development for acceptance in writing. If the applicant provided the project representative, the applicant must submit a resume of the representative's qualifications to the project architect/engineer and Rural Development for acceptance in writing, prior to the preconstruction conference. The project representative will attend the preconstruction conference where duties and responsibilities will be fully discussed. The project representative will work under the general supervision of the architect/engineer. The project representative will maintain a daily diary in accordance with the following:

(i) The diary shall be maintained in a hard-bound book.

(ii) The diary shall have all pages numbered and all entries in ink.

(iii) All entries shall be on daily basis, beginning with the date and weather conditions.

(iv) Daily entries shall include daily work performed, number of men and equipment used in the performance of the work, and all significant happenings during the day.

(v) The diary shall be made available to Rural Development personnel and will be reviewed during project inspections.

(vi) The project representative's diary will become the property of the owner after the project is accepted and final payments are made .

(c) Drawings. The type and kinds of drawings should be in accordance with Exhibit C of this subpart and Subpart D of Part 1944 of this chapter.

(1) The drawings must be clear, accurate, with adequate dimensions and of sufficient scale for estimating purposes.

(2) Construction sections and large-scale details sufficient for accurate bidding and for the purpose of correlating all parts of the work should be part of the general drawings. This is particularly important where the size of a project makes necessary the preparation of the general drawings at a scale of 1/8 inch equals 1 foot or less.

(3) Mechanical and electrical work should be shown on separate plans.

(4) Schedules should be provided for doors, windows, finishes, electrical fixtures, finish hardware, and any other specialty items necessary to clarify drawings.

(d) Specifications. Trade-type specifications (specifications divided into sections for various trades) should be used. The specifications should be complete, clear, and concise, with adequate description of the various classes of work shown under the proper sections and headings.

(e) Methods of administering construction. Projects involving a total development cost of less than \$100,000 which do not include an LH grant may, with the approval of the State Director, follow the contract procedure in § 1924.6(a) of this subpart without modification. Construction of all other projects, however, will be administered by the contract method or owner-builder method as set forth in this section.

## § 1924.13(e) (Con.)

(1) Contract method. This method of development will be used for all complex construction except in cases where owner-builder method is authorized. Development under this method is done in accordance with §1924.6(a) of this subpart except as modified by this paragraph. All construction work will be completed under one written construction contract. Guide 1, "Contract Documents," of this subpart (available in any RHS office) is provided to assist RHS personnel and applicants in assembling and reviewing contract documents for more complex construction such as that administered under this section.

(i) Competitive bidding methods.

(A) All construction contracts must be awarded on the basis of competitive bidding unless an exception is granted in accordance with paragraph (e)(1)(vii) of this section thereby permitting contract negotiation. The applicant's architect should prepare the bidding documents. Public notice must be given inviting all interested bidders to submit a bid. Prospective bidders may be contacted asking for their bids; however, public notice is necessary so that all local contractors have the opportunity to submit bids.

(B) A bid bond is required from each bidder in the amount of 5 percent of the bid price as assurance that the bidder will, upon acceptance of the bid, execute the required contract documents within the time specified.

(C) The construction contract will be awarded based on the contract cost, and all conditions listed in the "Invitation for Bid."

(D) If advertising does not provide a satisfactory bid in the opinion of the applicant and RHS, the applicant shall reject all bids and will then be free to negotiate with bidders or anyone else to obtain a satisfactory contract. The following conditions must be met:

(1) The State Director determines that the original competitive bid process was handled in a satisfactory manner and that there is no advantage to advertising for competitive bid again.

(2) The requirements of paragraph (e)(1)(vii) of this section are met.

(E) If there is no agreement by RHS and the applicant as to the construction cost, the State Director will cease any further action on the preapplication and inform the applicant of the right to appeal in accordance with subpart B of part 1900 of this chapter.  
(Revised 10-30-96, PN 267.)

(ii) Contract documents. Contract documents will conform with recognized professional practices as prescribed in this paragraph. Such contract documents will contain substantially the following:

- |           |  |
|-----------|--|
| Item I    | Invitation for Bid (Construction Contract)<br>(Form RD 1924-5)               |
| Item II   | Information for Bidders  |
| Item III  | Bid  |
| Item IV   | Bid Bond   |
| Item V    | Agreement (Construction Contract)  |
| Item VI   | Compliance Statement (Form RD 400-6)   |
| Item VII  | General Conditions   |
| Item VIII | Supplemental General Conditions  |
| Item IX   | Payment Bond (Exhibit F of this subpart)                                     |
| Item X    | Performance Bond (Exhibit G of this subpart)                                 |
| Item XI   | Notice of Award  |
| Item XII  | Notice to Proceed  |
| Item XIII | Drawings and Specifications  |
| Item XIV  | Addenda  |
| Item XV   | Contract Change Order (Form RD 1924-7)                                       |
| Item XVI  | Labor Standards Provisions (where applicable)<br>(Revised 10-30-96, PN 267.) |

§1924.13 (e) (1) (ii) (Con.)

Item XVII Monthly Employment Utilization Report  
(Form CC-257)

Item XVIII Partial Payment Estimate (Form  
RD 1924-18)

Item XIX Builder's Warranty (Form RD 1924-19)

(A) Substitution of term "architect" for "engineer" may be necessary on some of the forms. Other modifications may be necessary in some cases to conform to the nature and extent of the project. All such contract documents and related items will be concurred with by the State Director, with the assistance of OGC prior to the release of invitations to bid.

(B) Items listed as I through IV and item XI of paragraph (e) (1) (ii) of this section may be omitted when an exception to the competitive bidding requirement is granted in accordance with paragraph (e) (1) (vii) of this section, thereby permitting a negotiated contract.

(C) All negotiated contracts shall include a provision to the effect that the borrower, USDA, the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the contractor which are directly pertinent to a specific Federal loan program for the purpose of making audit, examination, excerpts, and transcriptions.

(D) A provision for liquidated damages will be included in all contracts. The liquidated damage amount must be reasonable and represent the best estimate possible of how much interest or other costs will accrue on the loan, and also represent any loss of rent or other income which would result from a delay in the completion of the project beyond the estimated completion date.

(E) All contracts shall include a provision for compliance with the Copeland "Anti-Kickback" act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 CFR Part 3). This Act prohibits anyone from inducing any person in connection with the construction to give up any part of the compensation to which the person is otherwise entitled.

(F) All contracts will contain a certification by the applicant indicating that there is not now nor will there be an identity of interest between the applicant and any of the following: Contractor, architect, engineer, attorney, subcontractors, material suppliers, equipment lessors, or any of their members, directors, officers, stockholders, partners, or beneficiaries unless specifically identified to Rural Development in writing prior to the award of the contract. All contracts must also indicate that when any identity of interest exists or comes into being, the contractor agrees to have construction costs as reported to Rural Development on Form 1924-13, "Estimate and Certificate of Mutual Cost"-audited by a Certified Public Accountant (CPA) or Licensed Public Accountant (LPA) licensed prior to December 31, 1970, who will provide an opinion as to whether the Form RD 1924-13 presents fairly the costs of construction in conformity with eligible construction costs as prescribed in Rural Development regulations. (Revised 8-12-87, PN 60.)

(G) All contracts on any form other than Form RD 1924-6, must contain the language of clause (D) of Form RD 1924-6, which is available in all Rural Development offices. The language of clause (D) of Form RD 1924-6 sets forth the Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity required by Executive Order 11246, the Equal Opportunity clause published at 41 CFR 60-1.4 (a) and (b), and the Standard Federal Equal Employment Opportunity Construction Contract Specifications required by Executive Order 11246. For contract forms other than Form RD 1924-6, Form AD 767, "Equal Employment Opportunity Contract Compliance Notices," which can be obtained from the Finance Office, should be attached and made a part of the contract.

(H) All contracts will contain a provision that they are not in full force and effect until concurred with by the State Director or the State Director's delegate, in writing. Therefore, before loan closing or before the start of construction, whichever occurs first, the State Director or the State Director's delegate will concur in the contract form, content, and execution if acceptable, by including the following paragraph at the end of the contract:

§ 1924.13(e) (1) (ii) (H) (Con.)

Rural Development, as potential lender or insurer of funds to defray the costs of this contract, are without liability for any payments thereunder, hereby concurs in the form, content, and execution of this contract.

Date \_\_\_\_\_

\_\_\_\_\_  
Rural Development Official\_\_\_\_\_  
Title

(I) The requirements of §1924.6 (a) (11) (iv) of this subpart apply to all contracts or subcontracts in excess of \$10,000.

(iii) Surety. When multiple advances of loan or grant funds are utilized, surety that guarantees both payment and performance in the full amount of the contract will be provided in accordance with §1924.6 (a) (3) (ii) of this subpart. Exceptions to the surety requirements shall be governed by the following:

(A) In accordance with the guidance and recommendations of OMB Circulars A-102 and A-110, exceptions to the surety requirements of §1924.6 (a) (3) (ii) of this subpart will not be granted for nonprofit organization or public body applicants.

(B) For loans or grants to applicants other than non-profit organizations or public bodies that are within the State Director's approval authority, the State Director may, upon request of the borrower or grantee, grant exceptions to the surety requirements in accordance with the provisions of §1924.6 (a) (3) (iii) of this subpart. Before granting such an exception, however, the State Director should be provided the following information from the proposed contractor in order to fully evaluate the experience and capabilities of the contractor:

(1) A resume indicating the contractor's history, ability and experience.

(2) A current, dated, and signed financial statement of the contractor's operations indicating the payment status of accounts and any contingent liabilities that may exist. Rural Development personnel will be responsible for analyzing the financial statement as to the sufficiency of the contractor's financial capability to carry out construction. The financial strength must demonstrate the ability of the contractor to pay all bills prior to receiving periodic draws of funds from the lender. (Revised 03-16-94, SPECIAL PN.)

(3) A credit report (obtained at no expense to Rural Development) attesting to the contractor's credit standing.

(4) A listing of trade references that could be contacted to substantiate the contractor's experience and good standing.

(5) Statements from owners for whom the contractor has done similar work, indicating the scope of the work and the owner's evaluation of the contractor's performance.

(C) For loans or grants to applicants other than non-profit organization or public bodies that are in excess of the State Director's approval authority, the State Director may request National Office authorization to grant one of the exceptions to the surety requirements as indicated in §1924.6 (a) (3) (iii) of this subpart. The following information must be submitted with the request to the National Office:

(1) An explanation of why interim financing is not available.

(2) An explanation of why the proposed contractor cannot obtain surety bonds meeting the requirements of §1924.6 (a) (3) (ii) of this subpart.

(3) The information listed in paragraph (e) (1) (iii) (B) of this section.

(4) The drawings and specifications for the proposed project, together with the comments of the State architect/engineer.

(5) The applicant's written request for an exception.

(6) An explanation of why the requirements of §1924.6 (a) (3) (iii) (A) or (B) of this subpart cannot be met in those cases where the State Director requests authorization to grant an exception as indicated in §1924.6 (a) (3) (iii) (C) of this subpart. When such a request is made, the documentation must also be forwarded.

(7) The State Director's recommendation.

(D) Adequate steps will be taken to protect the interests of the borrower and the government in accordance with the payment provisions of § 1924.6(a) (12) (i) of this subpart and any alternative as outlined in §1924.6 (a) (3) (iii) (C) of this subpart.

(iv) Contract cost breakdown. In any case where the loan approval official feels it appropriate, and prior to the award or approval of any contract in which there is an identity of interest as defined in §1924.4 (i) of this subpart, the contractor and any subcontractor, material supplier or equipment lessor sharing an identity of interest must provide the applicant and Rural Development with a trade-item cost breakdown of the proposed contract amount for evaluation. The cost of any surety as required by §1944.222 (h) and (i) of Subpart E of Part 1944 of this chapter and §1924.6 (a) (3) of this subpart, or cost certification as required by §1924.13 (e) (1) (v) of this section, will be included in the proposed contract amount and shown under General Requirements on Form RD 1924-13, which is available in all Rural Development offices. Rural Development personnel will be responsible for reviewing the estimates on Form RD 1924-13 to determine if the dollar amounts total correctly, to assure that costs are categorized under their appropriate columns, and to confirm that the estimated costs for all line items are reasonable and customary for the State. (Revised 03-16-94, SPECIAL PN.)

(v) Cost certification. Whenever the State Director determines it appropriate, and in all situations where there is an identity of interest as defined in §1924.4 (i) of this subpart, the borrower, contractor and any subcontractor, material supplier, or equipment lessor having an identity of interest must each provide certification using Form RD 1924-13 as to the actual cost of the work performed in connection with the construction

contract. The construction costs, as reported on Form RD 1924-13, must also be audited, in accordance with Government Auditing Standards, by a CPA, or LPA licensed on or before December 31, 1970. In addition, certain agreed upon procedures (available in any Rural Development office) will be performed in accordance with Attestation Standards. In some cases, Rural Development will contract directly with a CPA or LPA for the cost certification. In that event, documentation necessary to have the costs of construction certified by an Rural Development contractor that they were the actual costs of the work performed, as reported on Form RD 1924-13, will be provided. Funds which were included in the loan for cost certification and which are ultimately not needed because Rural Development contracts for the cost certification will be returned on the loan. Rural Development personnel will utilize Exhibit M of this subpart (available in any Rural Development office) and Form RD 1924-26, "Cost Certification Worksheet," to assist in the evaluation of the cost certification process. (Revised 03-16-94, SPECIAL PN.)

(A) Prior to the start of construction, the borrower, contractor and any subcontractor, material supplier, or equipment lessor sharing an identity of interest must submit, to the CPA or LPA, the accounting system that the borrower, contractor, subcontractor, material supplier, or equipment lessor and/or the CPA or LPA proposes to set up and use in maintaining a running record of the actual cost. In order to be acceptable, the borrower must provide a written assertion that it has an accounting system that is suitably designed to provide for a trade-item basis comparison of the actual cost as compared to the estimated cost submitted on Form RD 1924-13. Costs pertaining to a specific line item will be set up in the accounting system for that particular account. For instance, only costs of materials, supplies, equipment, and labor associated with concrete will be shown in the concrete account. The accounting system must also restrict costs to those pertaining to a specific project so that costs from multiple projects will not be commingled. The independent CPA or LPA shall report on the borrower's assertion in accordance with the Standards for Attestation Engagements of the American Institute of Certified Public Accountants (AICPA). The borrower's and the CPA or LPA's reports on the accounting system shall be provided to Rural Development by the borrower.

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(B) Prior to final payment to anyone required to cost certify, a trade-item breakdown showing the actual cost compared to the estimated cost must be provided to the owner and Rural Development. Form RD 1924-13 is the form of comparative breakdown that must be used, and contains the certifications required of the applicant and contractor prior to final payment. The amounts for builder's general overhead, builder's profit, and general requirements, respectively, shall not exceed the amounts represented on the estimate of cost breakdown provided in accordance with paragraph (e) (1) (iv) of this section for any contractor, subcontractor, material supplier, or equipment lessor having or sharing an identity of interest with the borrower. The amounts for general overhead, builder's profit, and general requirements must be established prior to Rural Development approving the construction contract and will not be changed during the course of construction. This applies to all contractors, subcontractors, material suppliers, or equipment lessors having or sharing an identity of interest with the applicant. Contract change orders will be processed to adjust the contract amount downward prior to the final payment to the contractor, if necessary, to assure that the amounts shown in the certificate of actual costs do not exceed the amounts represented in the contract cost breakdown. Reduction in the builder's profit, and general overhead if needed, will counterbalance any increase reflected in the contract costs. Any funds remaining as a result of hard cost savings will be applied to the account as an extra payment or used for eligible loan purposes approved by Rural Development as long as the improvements are genuinely needed and will enhance marketability of the project. All increases or decreases of 15 percent or more in line item costs will require documentation as to the reason for the increases and/or decreases. The State Director may require documentation for increases and/or decreases of less than 15 percent, if he/she determines it necessary. This information will be required with the cost certification.

(C) The CPA or LPA audit, performed in accordance with Government Auditing Standards, will include such tests of the accounting records and such other auditing procedures of the borrower and the contractor (and any subcontractor, material supplier, or equipment lessor sharing an identity of interest)

concerning the work performed, services rendered, and materials supplied in accordance with the construction contract he/she considers necessary to express an opinion on the construction costs as reported on Form RD 1924-13. The CPA or LPA shall also perform the additional agreed upon procedures specified by Rural Development (available in any Rural Development office), performed in accordance with Attestation Standards, for the applicant and the contractor (and any subcontractor, material supplier, or equipment lessor sharing an identity of interest) concerning the work performed, services rendered, and materials supplied in accordance with the construction contract.

(D) Upon completion of construction and prior to final payment, the CPA or LPA will provide an opinion concerning whether the construction costs, as reported on Form RD 1924-13, present fairly the costs of construction in conformity with eligible construction costs as prescribed in Rural Development regulations.

(E) In some cases, cost certification will be obtained by Rural Development through direct contract with the CPA or LPA. The borrower and his/her CPA or LPA will cooperate fully with the contract CPA or LPA by providing all documentation necessary to conduct the certification. Rural Development reserves the right to determine, upon receipt of the certified Form RD 1924-13 and the auditor's report, whether they are satisfactory to Rural Development. If not satisfactory to Rural Development, the borrower will be responsible for providing additional information.

(F) There will exist no business relationship between the CPA or LPA and the borrower except for the performance of the examination of the cost certification, accounting systems work, and tax preparation. Any CPA or LPA who acts as the borrower's accountant (performing manual or automated bookkeeping services or maintains the official accounting records) will not be the same CPA or LPA who cost certifies the project.

(G) Forms RD 1944-30, "Identity of Interest (IOI) Disclosure Certificate" and RD 1944-31, "Identity of Interest (IOI) Qualification Form," provide written notification to the borrower that willful and intentional falsification of cost certification documents will result in debarment of all violators

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in accordance with the provisions of RD Instruction 1940-M (available in any Rural Development office). These forms require the disclosure of all identities of interest associated with project construction, certify the entity's ability to provide the contracted service, and cite the penalties for failure to disclose or falsify such certification. Each applicant/borrower will be required to complete and sign the forms (available in any Rural Development office).

(H) Subcontracting development work.

(1) Contractors will not be allowed to obtain a profit and overhead unless they are performing actual construction. "Actual construction" means "work" as defined in American Institute of Architects (AIA) documents: "... labor, materials, equipment, and services provided by the contractor to fulfill the contractor's obligations." Under this definition, contractors who choose to subcontract out construction of the project to another contractor will not obtain a builder's fee (general overhead and profit) when:

(i) More than 50 percent of the contract sum in the construction contract is subcontracted to one subcontractor, material supplier, or equipment lessor, and/or

(ii) Seventy-five percent or more with three or fewer subcontractors, material suppliers, and/or equipment lessors.

(2) Note: If two or more subcontractors have common ownership, they are considered as one subcontractor.

(3) How to apply rule:

(i) The 50 percent rule will apply when division of the amount of the largest subcontract by the contract sum of the construction contract results in more than 50 percent.

(ii) The 75 percent rule will apply when division of the sum of the amounts of the three largest subcontracts by the contract sum of the construction contract results in 75 percent or more.

(I) Qualified contracting entities. Contractors, subcontractors, material suppliers, and any other individual or organization sharing an identity of interest and providing materials or services for the project must certify that it is a viable, ongoing trade or business qualified and properly licensed to undertake the work for which it intends to contract. Form RD 1944-31 will be prepared and executed by the contracting entities. The form provides notification to the entities of the penalty, under law, for erroneously certifying to the statements contained therein. Debarment actions will be instituted against entities who fail to disclose an identity of interest in accordance with the provisions of RD Instruction 1940-M (available in any Rural Development office).

(vi) Method of payments. Partial payments may be requested in accordance with the terms of the construction contract on Form RD 1924-18, "Partial Payment Estimate," or other professionally recognized form that contains the architect's certification, approval of the owner, and conditional acceptance of Rural Development as shown in Form RD 1924-18.

(A) If interim financing is available at reasonable rates and terms for the construction period, such financing shall be obtained. Exhibit B of Subpart E of Part 1944 of this chapter shall be used to inform the interim lender that Rural Development will not close its loan until the project is substantially complete, ready for occupancy, evidence is furnished indicating that all bills have been paid or will be paid at loan closing for work completed on the project, all inspections have been completed and all required approvals have been obtained from municipal and governmental authorities having jurisdiction over the project. Upon presentation of proper partial payment estimates approved by the applicant and accepted by Rural Development, the interim lender may advance construction funds in accordance with the payment terms of the contract. It is suggested that partial payments not exceed 90 percent of the value of work in place and materials suitably stored on site. (Revised 2-25-88, SPECIAL PN.)

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(B) When interim financing is not available, payments will be made in accordance with §1924.6(a)(12) of this subpart.

(vii) Exception to competitive bidding.

(A) For all applicants. An applicant may negotiate a construction contract provided the State Director grants an exception and documentation shows that:

(1) The contract price is competitive with other projects similar in construction and design being built in the area.

(2) The proposed contractor is experienced in construction of projects of similar size, scope, and complexity, and is recognized as a reliable builder.

(3) The proposed development work meets all requirements of this subpart.

(4) If appropriate for nonprofit organizations and public bodies, the application provides a copy of a duly authorized resolution by its governing body requesting Rural Development to permit awarding the construction contract without formal bidding.

(5) The applicant is permitted by state law, local law and/or organizational by-laws to negotiate a construction contract.

(6) The requirements of paragraphs (e)(1)(ii), (iii), (iv) and (v) of this section are met.

(B) In considering an exception to competitive bidding, the following additional steps will be taken in all cases.

(1) If, after a full review of the case documents by the appropriate members of the State Office staff, the State Director determines that the requirements have been met and the costs are reasonable, an exception to competitive bidding may be granted. Written documentation of the State Office review results will be placed in the application file.  
(Revised 03-16-94, SPECIAL PN.)

(2) If after the full review by the State Office staff, the State Director determines that the negotiated contract price is not competitive with other similar projects in construction and design being built in the area, the applicant will be requested to competitively bid the construction of the project in accordance with paragraph (e) (1) (i) of this section.

(3) If there is no agreement by Rural Development and the applicant as to the construction cost, the State Director will cease any further action on the preapplication and inform the applicant of the right to appeal in accordance with Subpart B of Part 1900 of this chapter.

(C) Any requests for exceptions to competitive bidding that are not covered in this section may be submitted to the National Office for consideration.

(viii) Exception to contract method - public body. With the approval of the National Office, the State Director may grant to a public body an exception to the requirement for using contract method construction under the following circumstances:

(A) The loan or grant is for repair or rehabilitation of existing facilities and it is not practicable to perform all work by the contract method.

(B) The applicant has the managerial ability and qualified employees necessary to complete the work successfully.

(C) The applicant submits a written request to the District Director indicating:

(1) The scope of work and construction timetable;

(2) What phases of work can be contracted and what cannot;

(3) Why is it not practicable to contract all phases;

(4) Management ability and employee qualifications for performing the work;

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(5) Proposed method of fund control and frequency of payments;

(6) How changes in scope of work and construction timetable will be approved; and,

(7) Proposed method of certifying progress and requesting payments.

(D) The request, recommendations of the District Director, appropriate members of the State Office staff and the State Director and the application file will be sent to the National office.

(2) Owner-builder method. This method of development is used only when requested by profit or limited profit RRH applicants when the applicant or any of its controlling principals (such as stockholders, members, partners other than limited partners, directors, or officers), are general contractors by profession, and will serve as the builder of the project without a written construction contract. The State Director may make an exception to the contract method of construction and authorize proceeding by the owner-builder method of construction in accordance with the provisions of this section if the amount of the loan(s) does not exceed the State Director's approval authority. For projects over the State Director's authority, prior written consent of the National office is required. In such cases, the drawings, specifications, cost estimates, copy of the State Architect/Engineer's review and detailed information on the applicant's qualifications will be submitted to the National Office along with the State Director's recommendations.

(i) The applicant's request to construct a project by the owner-builder method of construction shall be in the form of a letter giving specific and detailed information concerning the owner-builder's proposal, and the qualifications and past experience of the owner-builder. The following information must be included with the request:

(A) A resume indicating the owner-builder's history, ability, and experience.

(B) Dated and signed financial statements on the owner-builder's operation (including balance sheets and statements of income and expense) from current and prior years indicating the payment status of the owner-builder's accounts and any contingent

liabilities that may exist. Rural Development personnel will be responsible for analyzing the financial statement as to the sufficiency of the owner-builder's financial capability to carry out construction. The financial strength must demonstrate the ability of the owner-builder to pay all bills prior to receiving periodic draws of funds from the lender. (Revised 03-16-94, SPECIAL PN.)

(C) A written, dated, and signed statement agreeing to provide any funds necessary in excess of the applicant's contribution and the loan amount to complete the project.

(D) A credit report (obtained at no expense to Rural Development) attesting to the owner-builder's credit standing.

(E) A listing of trade references that could be contacted to substantiate the owner-builder's experience and good standing.

(F) Statements from other persons for whom the owner-builder has done similar work, indicating the scope of the work and that person's evaluation of the owner-builder's performance.

(G) A current, dated, and signed trade-item cost breakdown of the estimated total development cost of the project which has been prepared by the applicant/owner-builder. Form RD 1924-13 will be used for this purpose. If cost certification services are required by Rural Development, the cost of such services may be included in the total development cost of the project. Any subcontractor, material supplier, or equipment lessor sharing an identity of interest with the applicant/owner-builder as defined in §1924.4 (i) of this subpart must also provide a trade-item cost breakdown of the proposed amount. (Revised 03-16-94, SPECIAL PN.)

(H) Prior to the start of construction, the owner-builder and any subcontractor, material supplier, or equipment lessor sharing an identity of interest must submit, to the CPA or LPA, the accounting system that the owner-builder, subcontractor, material supplier, or equipment lessor and/or the CPA or LPA proposes to set up and use in maintaining a running record of the actual cost. In order to be acceptable, the owner-builder must provide a written assertion that it has

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an accounting system that is suitably designed to provide for a trade-item basis comparison of the actual cost as compared to the estimated cost submitted on Form RD 1924-13. Costs pertaining to a specific line item will be set up in the accounting system for that particular account. For instance, only costs of materials, supplies, equipment, and labor associated with concrete will be shown in the concrete account. The accounting system must also restrict costs to those pertaining to a specific project so that costs from multiple projects will not be co-mingled. The independent CPA or LPA shall report on the owner-builder's assertion in accordance with the Standards for Attestation Engagements of the AICPA. The owner-builder's and the CPA or LPA's reports on the accounting system shall be provided to Rural Development by the owner-builder. (Revised 03-16-94, SPECIAL PN.)

(I) A written, dated, and signed statement agreeing to permit U.S. Department of Agriculture, the Comptroller General of the United States, or any of their duly authorized representatives, to have access to any books, documents, papers, and records which are directly pertinent to the specific Federal program for the purpose of making audit, examination, excerpts and transcriptions.

(ii) In order to grant an exception to the contract method of construction and proceed with the owner-builder method of construction, the State Director must determine that the following conditions exist:

(A) The applicant or at least one of its principals is a fully qualified and licensed (if necessary under applicable local law) builder by profession, has adequate experience in constructing the type of units proposed as well as projects of similar size, scope, and complexity and will be able to complete the work in accordance with the Rural Development approved drawings and specifications.

(B) Based upon the information presented in the applicant's financial statements, the applicant is presently able and is likely to continue to be able to provide any funds necessary in excess of the applicant's contribution and the loan amount to complete the project.

(C) The total development cost of the project does not exceed that which is typical for similar type projects in the area. The total development cost recognized by Rural Development for each individual case will be determined by the MFH Coordinator with the advice of the State Architect. (Revised 03-16-94, SPECIAL PN.)

(D) The owner-builder has provided sufficient information on all contracts or subcontracts in excess of \$10,000 to permit compliance with §1924.6 (a) (11) (iv) of this subpart.

(iii) In addition to the requirements for the State Director to authorize the owner-builder method of construction as indicated in §1924.13 (e) (2) (i) and (ii) of this subpart, the following additional steps will be taken by the State Director.

(A) If, after a full review of the case documents by the appropriate members of the State Office staff, the State Director determines that the requirements have been met and the construction cost is reasonable, an exception to competitive bidding may be granted. Written documentation of the State Office review results will be placed in the application file.  
(Revised 03-16-94, SPECIAL PN.)

(B) If, after the full review by the State Office staff, the State Director determines that the construction cost is not competitive with other similar projects in construction and design being built in the area, the applicant will be requested to competitively bid the construction of the project in accordance with paragraph (e) (1) (i) of this section.

(C) If there is no agreement by Rural Development and the applicant as to construction cost and the applicant is not agreeable to any of the aforementioned alternatives, the State Director will cease any further action on the preapplication and inform the applicant of the right to appeal, in accordance with Subpart B of Part 1900 of this chapter.

(iv) The development cost of the project may include a typical allowance for general overhead, general requirements and a builder's profit. These amounts may be determined by local investigation and also from HUD data

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for the area. The applicant/owner-builder and any subcontractors, material suppliers, and equipment lessors having or sharing an identity of interest with the applicant/owner-builder may not be permitted a builder's profit, general overhead, and general requirements which exceed the amounts represented on their cost breakdown. (Revised 03-16-94, SPECIAL PN.)

(v) Under no circumstances will loan funds be used to pay the owner-builder or its stockholders, members, directors or officers, directly or indirectly, any profits from the construction of the project except a typical builder's fee for performing the services that would normally be performed by a general contractor under the contract method of construction. Discounts and rebates given the owner-builder in advance must be deducted before the invoices are paid. If discounts or rebates are given after the invoices are paid, the funds must be returned to the supervised bank account or applied on the interim construction loan, as appropriate. Under no circumstances will the dollar amount be placed in the reserve account. (Revised 03-16-94, SPECIAL PN.)

(vi) The plans and specifications must be specific and complete so that there is a clear understanding as to how the facility will be constructed and the materials that will be used.

(vii) When architectural services are required by §1924.13(a) during the construction and warranty phases they must be provided by an architect who has no identity of interest with the applicant/owner-builder. The services to be rendered during the construction and warranty phases include, but are not limited to inspections, changes in the scope of project or work to be done, administration of construction accounts, rejection of work and materials not conforming to the Rural Development approved drawings and specifications, and other appropriate service listed in §1924.13 (a) (5) (v) and (vi) of this subpart.

(viii) The applicant/owner-builder and any subcontractor, material supplier, or equipment lessor sharing an identity of interest as defined in §1924.4 (i) of this subpart must each provide certification as to the actual cost of the work performed in connection with the construction of the project on Form RD 1924-13 prior to final payment. The construction costs, as reported on Form RD 1924-13, must be audited by a CPA, or LPA licensed on or before

December 31, 1970, in accordance with Government Auditing Standards, and certain agreed upon procedures (available in any Rural Development office) performed in accordance with Attestation Standards. In some cases, Rural Development will contract directly with a CPA or LPA for the cost certification. In that event, documentation necessary to have the costs of construction certified by an Rural Development contractor that they were the actual costs of the work performed, as reported on Form RD 1924-13, will be provided. Funds which were included in the loan for cost certification and which are ultimately not needed because Rural Development contracts for the cost certification will be returned on the loan. (Revised 03-16-94, SPECIAL PN.)

(A) The CPA or LPA's audit, performed in accordance with Government Auditing Standards, will include such tests of the accounting records and such other auditing procedures of the applicant/owner-builder (and any subcontractor, material supplier, or equipment lessor sharing an identity of interest) concerning the work performed, services rendered, and materials supplied in connection with the construction of the project he/she considers necessary to express an opinion on the construction costs as reported on Form RD 1924-13. Upon completion of construction and prior to final payment, the CPA or LPA will provide an opinion as to whether the construction costs as reported on Form RD 1924-13 present fairly the costs of construction in conformity with eligible construction costs as prescribed in Rural Development regulations. Rural Development reserves the right to determine, upon receipt of the certified Form RD 1924-13 and the auditor's report, whether they are satisfactory to Rural Development. At a minimum, the CPA or LPA shall also perform any additional agreed upon procedures (available in any Rural Development office) specified by Rural Development, performed in accordance with Attestation Standards, of the owner-builder (and any subcontractor, material supplier, or equipment lessor sharing an identity of interest) concerning the work performed, services rendered, and materials supplied in connection with the construction. There will exist no business relationship between the CPA or LPA and the borrower except for the performance of the examination of the cost certification, accounting systems work, and tax preparation. Any CPA or LPA who acts as the borrower's accountant (performing manual or automated bookkeeping services or maintains the official accounting records) will not be the same CPA or LPA who cost certifies the project.

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(B) Prior to final payment to anyone required to cost certify, Rural Development must be provided with a certification and a trade-item breakdown showing the actual cost compared to the estimated cost furnished in accordance with paragraph (e) (2) (i) (G) of this section. Form RD 1924-13 is the form of comparative breakdown that must be used, and contains the certification required of the applicant/owner-builder prior to final payment. The amounts for builder's general overhead, general requirements, and builder's profit shall not exceed the amounts represented on the estimate of cost breakdown provided in accordance with paragraph (e) (2) (i) (G) of this section for the owner-builder or any subcontractor, material supplier, or equipment lessor having or sharing an identity of interest with the applicant/owner-builder. Final payment to the owner-builder will be adjusted, if necessary, to assure that the amounts shown on the certificate of actual cost do not exceed the amounts represented on the cost breakdown. Any funds remaining as a result of hard cost savings will be applied to the account as an extra payment or used for eligible loan purposes approved by Rural Development as long as the improvements are genuinely needed and will enhance marketability of the project. All increases or decreases of 15 percent or more in line item costs will require documentation as to the reason for the increases or decreases. The State Director may require documentation for increases or decreases of less than 15 percent, if he/she determines it necessary. This information will be required with the cost certification.

(C) Subcontracting development work.

(1) Owner-builders will not be allowed to obtain a profit and overhead unless they are performing actual construction. "Actual construction" means "work" as defined in AIA documents: "... labor, materials, equipment, and services provided by the contractor to fulfill the contractor's obligations." Under this definition, owner-builders who choose to subcontract out construction of the project to another contractor will not obtain a builder's fee (general overhead and profit) when:

(i) More than 50 percent of the total cost of the building construction is subcontracted to one subcontractor, material supplier, or equipment lessor, and/or

(ii) Seventy-five percent or more with three or fewer subcontractors, material suppliers, and/or equipment lessors.

(2) Note: If two or more subcontractors have common ownership, they are considered as one subcontractor.

(3) How to apply rule:

(i) The 50 percent rule will apply when division of the amount of the largest subcontract by the total amount of the building cost results in more than 50 percent.

(ii) The 75 percent rule will apply when division of the sum of the amounts of the three largest subcontracts by the total building cost results in 75 percent or more.

(D) Qualified contracting entities. Contractors, subcontractors, material suppliers, and any other individual or organization sharing an identity of interest and providing materials or services for the project must certify that it is a viable, ongoing trade or business qualified and properly licensed to undertake the work for which it intends to contract. Form RD 1944-31 will be prepared and executed by the contracting entities. The form provides notification to the entities of the penalty, under law, for erroneously certifying to the statements contained therein. Debarment actions will be instituted against entities who fail to disclose an identity of interest in accordance with the provisions of RD Instruction 1940-M (available in any Rural Development office).

(ix) Requests for payment for work performed by the owner-builder method, shall be submitted to the Rural Development District Director for review and approval prior to each advance of funds in order to insure that funds are used for authorized purposes. Requests for payment shall be made on Form RD 1924-18 or other professionally recognized form containing the following certifications to Rural Development:

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The undersigned certifies that the work has been carefully inspected and to the best of their knowledge and belief, the quantities shown in this estimate are correct and the work has been performed in accordance with the contract documents.

\_\_\_\_\_  
(Name of Architect)

By: \_\_\_\_\_

\_\_\_\_\_  
(Title) (Date)

Approved by Owner's Representative:

By: \_\_\_\_\_

\_\_\_\_\_  
(Title)

Accepted by Rural Development Representative:

By: \_\_\_\_\_

\_\_\_\_\_  
(Title)

The review and acceptance of partial payment estimates by Rural Development does not attest to the correctness of the quantities shown or that the work has been performed in accordance with the plans and specifications.

\_\_\_\_\_  
(A) If interim financing is available at reasonable rates and terms for the construction period, such financing shall be obtained. Exhibit B of Subpart E of Part 1944 of this chapter shall be used to inform the interim lender that Rural Development will not close its loan

until the project is complete, ready for occupancy, evidence is furnished indicating that all bills have been paid for work completed on the project, all inspections have been completed and all required approvals have been obtained from any governmental authorities having jurisdiction over the project. Upon presentation of proper payment estimates containing an estimate of the value of work in place which has been prepared and executed by the owner-builder, certified by the applicant's architect, and accepted by Rural Development, the interim lender may advance construction funds in accordance with the provisions of this section. It is suggested that the partial payment not exceed 90 percent of the value of work in place and material suitably stored on site. (Revised 2-25-88, SPECIAL PN.)

(B) If interim financing is not available, partial payments not to exceed 90 percent of the value of work in place and materials suitably stored on site may be made to the owner-builder for that portion of the estimated cost of development guaranteed by a letter of credit or deposits meeting the requirements of §1924.6

(a) (3) (iii) (A), (B), or (C) of this subpart. Partial payments may not exceed 60 percent of the value of work in place in all other cases. The determination of the value of work in place will be based upon an application for payment containing an estimate of the value of work in place which has been prepared and executed by the owner-builder, certified by the borrower's architect, and accepted by Rural Development. Prior to receiving the first partial payment, the owner-builder must submit a schedule or prices or values of the various trades or phases of the work aggregating the total development cost of the project as required in §1924.13 (e) (2) (i) (G) and (H) of this subpart. Each application for payment must be based upon this schedule, and show the total amount owed and paid to date for materials and labor procured in connection with the project. With each application for payment, the owner-builder must also submit evidence showing how the requested partial payment is to be applied, evidence showing that previous partial payments were properly applied, and a signed statement from the applicant's attorney, title insurance company, or local official in charge of recording

§1924.13 (e) (2) (ix) (B) (Con.)

documents certifying that the public records have been searched and that there are no liens of record. When the District Director has reason to believe that partial payments may not be applied properly, checks will be made payable to persons who furnish materials and labor for eligible purposes in connection with the project.

(x) Under no circumstances shall funds be released for final payment or to pay any items of the builder's profit until the project is 100 percent complete, ready for occupancy, and the owner-builder has completed and properly executed Form RD 1924-13 or complied with the cost certification procedures of §1924.13 (e) (2) (viii) of this subpart.

§§1924.14 - 1924.48 [Reserved]

§1924.49 State supplements.

State supplements or policies will not be issued or adopted to either supplement or set requirements different from those of this subpart, unless specifically authorized in this subpart, without prior written approval of the National Office.

§1924.50 OMB control number.

The reporting and recordkeeping requirements contained in this regulation have been approved by the Office of Management and Budget (OMB) and have been assigned OMB control number 0575-0042. Public reporting burden for this collection of information is estimated to vary from 5 minutes to 4 hours per response, with an average of 37 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to U.S. Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Washington, DC 20250; and to the Office of Management and Budget, Paperwork Reduction Project (OMB# 0575-0042), Washington, DC 20503.

Attachments: Exhibits A, B, C, D, E, F, G, H, I, J, K, L and M  
Automation Supplement (Attached to Exhibit D)  
Guides 1, 2, 3 and 4

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ESTIMATED BREAKDOWN OF DWELLING COSTS  
FOR ESTIMATING PARTIAL PAYMENTS

	With Slab on Grade	With Crawl Space	With Basement
	%	%	%
1. Excavation	3	5	6
2. Footings, foundations, columns	8	8	11
3. Floor slab or framing	6	4	4
4. Subflooring	0	1	1
5. Wall framing, sheathing	7	7	6
6. Roof and ceiling framing, sheathing	6	6	5
7. Roofing	5	5	4
8. Siding, exterior trim, porches	7	7	6
9. Windows and exterior doors	9	9	8
10. Plumbing - roughed in	3	2	3
11. Sewage disposal	1	1	1
12. Heating - roughed in	1	1	1
13. Electrical - roughed in	2	2	2
14. Insulation	2	2	2
15. Dry wall or plaster	8	8	7
16. Basement or porch floor, steps	1	1	6
17. Heating - finished	3	3	3
18. Flooring	6	6	5
19. Interior carpentry, trim, doors	6	6	5
20. Cabinets and counter tops	1	1	1
21. Interior painting	4	4	3
22. Exterior painting	1	1	1
23. Plumbing - complete fixtures	4	4	3
24. Electrical - complete fixtures	1	1	1
25. Finish hardware	1	1	1
26. Gutters and downspouts	1	1	1
27. Grading, paving, landscaping	3	3	3
	100 %	100 %	100 %

## REQUIREMENTS FOR MODULAR/PANELIZED HOUSING UNITS

For the benefit of Rural Development this Exhibit prescribes evaluation, acceptance, inspection and certification procedures for modular/panelized housing units proposed for use in Rural Development Rural Housing programs. It applies to proposed development packages provided either under a contract between an Rural Development borrower and a single contractor or under a conditional commitment. This Exhibit also describes the use of background information available through the Department of Housing and Urban Development (HUD) for analysis of manufactured products. This Exhibit also applies to the evaluation of manufactured farm service buildings in paragraph XI, below. For the purpose of this Exhibit, County Supervisor and County Office also mean District Director and District Office, respectively.

### I. Applicable Standards and Manuals.

A. The HUD Handbook 4950.1, Technical Suitability of Products Program Technical and Processing Procedures, must be followed by housing manufacturers to obtain acceptance of their products. Acceptance documents issued by HUD include: Structural Engineering Bulletins (SEB) on a national basis, Area Letters of Acceptance (ALA) which when accepted by all Area HUD Offices in a HUD region will, in essence, become Regional Letters of Acceptance (RLA), Truss Connector Bulletins (TCB): and, Mechanical engineering Bulletins MEB). These documents as well as the Use of Material Bulletins (UM) and Materials Release Bulletins (MR) are addendum to the HUD Minimum Property Standards (MPS). Under handbook guidelines, HUD also examines state agency regulations concerning design, construction and labeling of modular/panelized housing units and designates those states having procedures acceptable for use under HUD programs. Modular/panelized housing produced in these states is called Category III and is considered technically suitable for use without further structural analysis.

B. All State Rural Development Offices should maintain a close working relationship with each HUD office in their jurisdiction to assure coordination. Any deviations in structure, materials or design from HUD acceptance documents must comply with one of the other applicable development standards.

### II. Modular Housing Units that Require Factory Inspections.

Only those types which cannot be completely inspected on site are required to obtain acceptance from HUD. Those that receive acceptance will be periodically factory inspected by HUD or HUD's designated agency, usually about every 6 months.

III. Panelized Housing Units that Do Not Require Factory Inspections.

A. Housing completely assembled on the building site does not require HUD acceptance. This includes housing that is manufactured but is assembled on the site such as: Precut pieces, log wall houses, trussed roof rafters or floor trusses; open panel walls, and other types that can be completely inspected on site.

B. Housing that is assembled in local materials dealers' yards for moving to local sites and to be purchased by an Rural Development applicant, will be inspected during construction in the yard by the local Rural Development County representative. These units must be constructed according to the applicable development standard and not transported out of the local Rural Development County Office jurisdiction. The inspection must be recorded on Form RD 1924-12 "Inspection Report."

IV. Manufacturer's Actions Required for Submissions to Rural Development are listed in Attachment 1 to this Exhibit B.

V. State Rural Development office Actions when Manufacturing Facilities are in its Jurisdiction. The State Office, upon receipt of manufacturer's submission, must:

A. Determine that the unit structural system has been accepted by HUD as appropriate under HUD Handbook 4950.1 requirements.

B. Review the thermal characteristics and approach of the calculations to determine actions to be taken in compliance with paragraph IV C of Exhibit D of this subpart.

C. Review the proposal for compliance with §1924.5 (d) (1) of this subpart.

D. Determine that the prerequisites for consideration of acceptance by Rural Development are met. The prerequisites include all of the following:

1. A current acceptance document from HUD (SEB, RLA, ALA), Except for Category III housing modular/panelized housing that does not have to have a Structural Engineering Bulletin as designated by HUD). In Category III states, the state government requirements for manufactured housing must be followed.

2. A current HUD Factory Inspection Report, Form No. 2051m, or in the case of Category iii housing, a copy of the inspection report from the state government or accepted third party performing the factory inspection. Each report must be made by HUD or a HUD authorized agency, and must be no older than 6 months.

3. A letter from the manufacturer requesting a review for acceptance. Enclosed with the letter shall be all the information listed in Attachment 1 to this Exhibit B.

E. Issue acceptance letters to the manufacturer stating the conditions of acceptance in the format of Attachment 2 to this Exhibit B. The letter shall have an attachment listing all models accepted in the format of Attachment 3 to this Exhibit B. A copy of the acceptance letter and list of models shall be sent to each County Office in the state and, when requested by the manufacturer, to each other Rural Development State Office in which the product is to be marketed.

F. After initial review of a submission, maintain a master file of accepted manufacturers and models and review the file twice yearly to determine the currency of the factory inspection reports and HUD or state government acceptance documents.

G. Notify manufacturers of overdue factory inspection reports, for acceptance of documents review and updating, using the format of Attachment 4 to this Exhibit B. Accompanying the notification will be a temporary acceptance sheet (Attachment 3 to this Exhibit B) indicating to the manufacturer that the company models have temporary acceptance for 60 days. If the manufacturer provides evidence that a review is being processed by HUD, a maximum of an additional 90 days may be granted. Otherwise, the acceptance shall terminate on the last extension date and it will be necessary for the manufacturer to resubmit as if for initial acceptance.

H. Distribute a list of added models, deleted models, or notice of deletion of any manufacturer's product to the County Offices and other State Rural Development Offices as necessary.

I. Issue an initial supply of Manufacturer's and Builder's Certification forms (Attachment 5 to this Exhibit B) to each existing and newly accepted manufacturer. Manufacturers are to duplicate this form as necessary in their market areas.

J. Resolve any problems with the manufacturer, as reported by the County Office. Action may include coordination, Rural Development plant inspections or cancellation of acceptance letters when problems persist.

#### VI. County Office Actions:

A. When an application is received involving any of the manufacturer's products on the accepted list, the County Office Rural Development authorized personnel will:

1. Review the drawings and description of materials described in paragraphs A and B of Attachment 1 to this Exhibit B. The floor plans and elevations must be identifiable with the model listed in the accepted list issued by the State Office.

2. Require the builder/dealer or manufacturer to provide any drawings necessary to adapt the house to the site conditions where the house will be located. .

3. Require site plan drawing such as those illustrated in Attachments 1 and 2 to Exhibit C of this subpart (available in any Rural Development office).

4. Inspect and identify the model delivered against the manufacturer s certification and the accepted drawings and description of materials before the unit has been set on the foundation.

5. Require the builder/dealer to certify that the work for which the builder/dealer is responsible has been erected in compliance with the applicable development standard. This certification will be completed on a copy of Attachment 5 to this Exhibit B, and filed in County Office case file.

6. Observe any noncompliance with the applicable development standard or with paragraphs IV and V of this Exhibit B. In this respect:

a. Minor noncompliance will be resolved by the manufacturer through the builder/dealer. In cases where there is no builder/ dealer, the County Office may resolve such issues with the manufacturer directly.

b. Noncompliance that cannot be resolved at the County Office level will be reported to the State Office.

7. Inspect manufactured housing according to § 1924.8(d) of this subpart.

8. Be aware that the accepted list may include many models from which loan applicants may choose. No changes from accepted model designs are permitted. The model selected by an applicant should be appropriate to the needs of that particular family in accordance with 7 CFR part 3550. (Revised 01-23-03, SPECIAL PN.)

#### VII. Noncompliance Issues.

A. When minor issues are noted, the County Office will attempt to resolve them as described above. If they cannot be resolved locally, they will be referred to the State Office. When any issues cannot be resolved at State Office level, the National Office Program Support Staff (PSS) will be contacted for guidance.

B. The National Office PSS, coordinating with HUD, will take the appropriate actions to resolve the issues reported.

C. Manufacturers and builder/dealers must be aware that if the Rural Development inspector finds any of the following conditions, the inspector may refuse to accept the construction until corrections have been made:

1. Evidence of noncompliance with any option of the method described in the HUD - SEB, RLA, or ALA.
2. Faulty shop fabrication, including surface defects.
3. Damage to shop fabricated items or materials due to transportation, improper storage, handling or assembly operation.
4. Unsatisfactory field or site workmanship.

VIII. Actions by Other State Offices. When a State Office receives a copy of the accepted list from the State Office in which a manufacturing plant is located, it will:

- A. Maintain a file, by manufacturer, of each accepted list of models.
- B. Provide copies of the accepted list of models to each County Office in the state.
- C. Request a copy of the drawings, description of materials, and thermal calculations to determine compliance with the thermal requirements for the county in which the house is to be located according to Exhibit D of this subpart.
- D. Check to see that County Offices within the state will act as prescribed in paragraph VI of this Exhibit B.
- E. When two or more State Offices have different interpretations of the acceptability of a particular model, there must be an agreement between the states so that they will have the same requirements. If the states cannot agree, the National Office PSS will be consulted for guidance.

IX. Subsequent Review.

Rural Development will make periodic reviews of houses, both site-built and houses manufactured offsite, to determine acceptability of the finished product. If, in the judgment of the Rural Development, the product has failed to perform satisfactorily, acceptance may be withdrawn. The State Director will notify the manufacturer and/or the builder/dealer of the reasons for the withdrawal no later than the time of withdrawal. Negotiations for corrections will be carried out by the County Office with the assistance of the State Office or National Office, as necessary.

X. Materials and Products Acceptance - Material Release Bulletins, Use of Materials Bulletins, Manufacturer's Instructions.

A. The Materials Release (MR) and Use of Materials Bulletins (UM) provide for the national acceptance of specific nonstandard materials and products not covered in the current HUDMPS.

B. When contractors or builders intend to use products or materials not listed as approved in the MPS, the Rural Development personnel reviewing or concerned with the approval of construction in which the product is to be used, will require the contractor or builder to furnish a Materials Release Bulletin or Use of Materials Bulletin on the materials or products. If the product has been accepted, the supplier should be able to obtain the bulletin for the contractor or builder from the manufacturer. These bulletins describe the products or materials limitations to use, method of installing or applying, approved type of fasteners, if used, etc. and will provide the contractor with instructions as to proper installation or application.

C. When Rural Development personnel are unfamiliar with any materials or products which have been accepted in the MPS, they will request the contractor or builder to furnish the manufacturer's instructions to assure that the materials or products are properly installed or applied. Any questions on any product that cannot be resolved in the County Office should be referred to the State Office. When the question cannot be resolved at the State Office level, the National Office PSS should be consulted for guidance.

XI. Manufactured Farm Service Buildings.

A. When a loan application is received that involves a manufactured building or special equipment that cannot be completely inspected on the site, the local State Land Grant University recommendations should be requested.

B. When the County Office questions the advisability of making a loan on a manufactured building, the State Office should also be consulted.

C. The State Office should review and make recommendations to the County Office. If doubt still exists, the National Office PSS should be consulted for guidance.

REQUIRED INFORMATION FOR ACCEPTANCE OF MODULAR/PANELIZED HOUSING UNITS

The manufacturer or sponsor of modular/panelized housing units wishing to participate in the Rural Development Rural Housing programs shall submit to the Rural Development State Director having jurisdiction over the state in which the proposed housing is to be manufactured, two complete sets of the information listed below for evaluation. Submissions not including all the information requested will be returned.

A. Statements:

1. Name and location of organization, including titles and names of its principal officers.
2. A brief description of plant facilities.
3. Extent of intended market distribution, including a list of any other states in which units will be marketed.
4. The method of quality control during site installation.
5. A copy of the applicable current HUD Structural Engineering Bulletin (SEB), Regional Letter of Acceptance (RLA), or Area Letter of Acceptance (ALA).
6. A current factory inspection report made within 6 months by HUD or HUD authorized agency.
7. Name and address of any third party inspection agency.
8. Location of nearest assembled product for inspection.
9. Field manuals for site installation and/or set-up procedures.
10. Specifications or descriptions of materials using either Form RD-1924-2, (HUD-FHA Form 2005), "Description of Materials," including sizes, species and grade of all building and finishing materials. All blanks should be filled and additional sheets may be attached as well as equipment manufacturer's brochures. Use an asterisk (\*) to denote all item of onsite construction that will be provided by the builder-dealer. The builder-dealer must complete a form for the builder-dealer's portion of the work. Use N/A in any blank which is not applicable.
11. Names and addresses of other public and private agencies which have rendered or been asked to render a technical suitability or acceptance determination with respect to the products or structural methods employed.

12. Written certification that construction drawings and specifications conform with the applicable development standard.
13. Any other pertinent information.
14. An index of all documents submitted.

B. Working Drawings. For emphasis as to the details required for modular/panelized housing proposals, the following items are listed in addition to and in more detail than the requirements in Exhibit C of this subpart. In some cases, the drawing presentation sheers maybe required to be reduced to 200 mm by 266 mm (8 x 10 1/2 inches) sheet size:

1. Foundation and/or Basement Plan. This plan shall include anchorage details, exterior and interior dimensions, typical footings, wall thickness, pilaster sizes and locations, column or pier sizes and locations and girders required to support the structures. Show location of all equipment (furnace, water heater, laundry tubs, sump, etc.) floor drains, electrical outlets, electrical entrance panels, and all doors and windows or crawl space vents with all sizes indicated.
2. Floor Plans of all levels. Show square footage of each habitable room with square footage of each area of natural limit and ventilation. In addition, a design sketch scaled properly to illustrate a typical furniture arrangement for all habitable levels is required to indicate intended occupancy functions of the design. A window and door schedule should also be provided indicating glazed size, sash size, and thermal conductance of each type.
3. All exterior elevations including openings and sizes; wall finish materials, flashing, finish grades intended, depth of footings when known, finish floor, ceiling heights, roof slope, location of downspouts, gutters, vents for both structural spaces and for equipment. Indicate construction joint locations and details of connections between sections, modules or components.
4. Building cross sections showing size and spaces of all framing members from lowest member (bottom of footing) to highest point of roof (ridge) plus:
  - (a) Type of material and method of application of all covering materials, such as subflooring, combination subflooring and underlayment, sheathing, and interior and exterior finishes;

(b) Complete details including computations of trussed rafter systems with the architect/engineer's stamp of those responsible for the design.

(c) Details of installation and vapor barrier installation and attic ventilation. If the thermal characteristics to be provided are determined according to the optional method for overall structure performance allowed in Exhibit D of this subpart, the submission and complete engineering calculations with all details of construction shall be sent to Administrator, Attn. PSS, Rural Development Washington, D.C. 20250, for analysis as prescribed in paragraph IV C of Exhibit D of this subpart.

(d) Special details as necessary to show any special features of construction, including method of fabricating, erection, joining, and finishing of all elements; and

(e) Details and sections of stairways including all critical dimensions, such as, riser, run and headroom.

5. Interior elevations of kitchen cabinets and bathroom elevations with schedule of all shelf, counter-top and drawer footage. Indicate whether kitchen cabinets are to be custom made for each model or made for are model by a cabinet manufacturing company.

6. Plumbing schematics, including pipe materials, sizes and planning code compliance.

7. Heating plan, including heat loss of each room, is needed for heating systems, sizings and capacities, forced air, electric baseboard, or electric space heaters and, if applicable, heat gain. For forced air systems, include supply and return duct layout and location of appropriate diffusers.

8. Electrical plan, including circuit chart or diagram.

9. Any other pertinent facts or drawings that will better explain why and how certain unusual materials or structural methods are employed.

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John Douth Manufacturing Company  
3444 Residence Avenue  
Elkton, Indiana 00051

Dear Sirs:

Although the documents submitted to this office have only received a cursory review, they appear to be in substantial compliance to qualify your firm for the type of acceptance indicated on the attached list.

The acceptance being issued is subject to this letter of conditions, compliance with HUD handbook 4950.1, Technical Suitability of Products Program Technical and Processing Procedures, compliance with Rural Development Thermal Performance Construction Standards, and compliance with the conditions set forth in the HUD acceptance document, if applicable, those number appears on the acceptance.

The manufacturer and the authorized builder-dealer bear the responsibility of complying with the above, the exhibits submitted and the applicable development standards.

The manufacturer and/or builder-dealer also shall:

1. Provide positive identification of the modular unit by model, date of manufacture and factory in which the unit has manufactured.
2. Furnish with each home to be financed by Rural Development in State       , a written certificate (Attachment 5 to this Exhibit B) endorsed by the builder-dealer certifying that all requirements have been satisfied.
3. Furnish the local Rural Development County Supervisor with a complete set of drawings including site plans, description of materials, structural engineering bulletins when applicable in the state, and documentation relating to the manufacture, transportation, erection, and installation for each model of modular/panelized housing to be financed in the county. Electrical, plumbing and heating plans must be furnished for each model in addition to the basic drawings. Floor plans and elevation drawings may vary from those listed in Attachment 1 of Exhibit B to RD Instruction 1924-A to reflect each of the manufacturer's models provided they are in compliance with the applicable development standard and the Rural Development Thermal Performance Construction Standards and provided they have been accepted and listed in this state's approval of manufactured structures. No field alterations to the accepted models will be allowed.
4. Furnish, when required by the County Supervisor, foundation drawings (including special foundation design considerations when the unit is to be erected in seismic zones 1, 2 or 3) adapting the modular home to any unusual site conditions needing information additional to that furnished by the standard drawings.

5. Furnish the County Office with a copy of inspection reports of the manufacturing facilities immediately after the inspection reports have been completed.
6. Allow Rural Development personnel to inspect the manufacturing facilities at any time and furnish all Rural Development State Offices, where acceptance has been obtained, with a copy of any Rural Development Inspection reports immediately after the inspection reports have been completed.
7. In the event there are major changes to the submitted drawings, obtain approval under the HUD Technical Suitability of Products Program and submit verification of this approval to the County Office for listing on the state's accepted list. Any modular home shipped with major changes incorporated, without such changes on file at the County Office may be rejected.

(Add state and local requirements appropriate to this letter of conditions.)

This acceptance may be subject to corrective action when deficiencies are noted in the product, field inspections, manufacturing facilities, or when there is noncompliance with the provisions of the HUD technical Suitability of Products Program.

The inclusion of these models on the accepted list is based only on the material and structural aspects of the manufactured units. Final determination of acceptability rests with Rural Development personnel. Other factors relating to the property in its entirety such as appraisal, location, sustained market acceptance, architectural planning and appeal, thermal qualities, mechanical and electrical equipment, etc., must be considered in the final determination.

Your cooperation in this acceptance program is appreciated.

Sincerely,

State Director

Date \_\_\_\_\_ File No. \_\_\_\_\_

ACCEPTANCE OF MODULAR/PANELIZED HOUSING UNITS  
(BASED ON HUD HANDBOOK 4950.1)

Manufacturer:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Acceptance Document \_\_\_\_\_  
Type of Acceptance:  
\_\_\_\_ Regular  
\_\_\_\_ Temporary, Expires \_\_\_\_\_

Plant locations: \_\_\_\_\_

Date of Latest Plans Revised \_\_\_\_\_

Date of Latest Factory Inspection \_\_\_\_\_

Acceptance Document Review Date \_\_\_\_\_

RD Instruction 1924-A, Exhibit D

THERMAL PERFORMANCE CONSTRUCTION STANDARDS

State Office Review

(Exh. D, IV, C, 1, a or b)

National Office Review

(Exh. D, IV, C, 2)

Maximum Winter Degree Days for State \_\_\_\_ Walls R \_\_\_\_ Glazing/Gross Wall  
Area Ratio \_\_\_\_\_%

Ceilings R \_\_\_\_ Glazing \_\_\_\_ Pane(s) Floor R \_\_\_\_ Glazing \_\_\_\_ Pane(s)

Insulated Door \_\_\_\_ Wood & Storm \_\_\_\_ Insulated Door \_\_\_\_ Wood & Storm \_\_\_\_

Models Accepted:

RD Instruction 1924-A  
Exhibit B  
Attachment 4

John Douth Manufacturing Company  
3444 Residence Avenue  
Elktown, Indiana 00051

Dear Sirs:

As set forth in acceptance letters issued by this office, acceptance of modular/panelized homes in this state is based on HUD's Technical Suitability of Products Program and the conditions stated in the acceptance letter. Your file has been reviewed and the following has been noted.

\_\_\_\_\_ An inspection report of your manufacturing facilities is overdue. Inspections are required twice yearly. The last inspection report on file at this office is dated \_\_\_\_\_.

\_\_\_\_\_ Your Structural Engineering Bulletin No. \_\_\_\_ dated \_\_\_\_\_ has not been reviewed by HUD. Reviews are generally required every three years. Temporary acceptance will be considered when you provide evidence that the review documents have been submitted to HUD.

\_\_\_\_\_ The drawings being used for the construction of your homes are not listed in your Structural Engineering Bulletins. Drawings used in the field should be those upon which the Structural Engineering Bulletin was issued.

\_\_\_\_\_ There have been \_\_\_\_\_ revisions to the development standards since \_\_\_\_\_, the date of the last drawings we have on file for your homes. It is recommended that you review the revisions to ascertain whether your drawings need to be updated.

Please submit a written response and appropriate documents for the above items within \_\_\_\_\_ days, or your product will be removed from the accepted list until your firm can again quality. If you have any problems furnishing the above within the time stated, please contract this office.

We look forward to receiving the materials indicated so that your firm's listing may be continued.

Sincerely,

State Director

(5-12-87) SPECIAL PN

CERTIFICATION BY MANUFACTURER

Delivery location of structure or component \_\_\_\_\_  
\_\_\_\_\_

This is to certify that Model: \_\_\_\_\_,  
Serial # \_\_\_\_\_ manufactured \_\_\_\_\_ (date) \_\_\_\_\_, 19 \_\_\_\_\_ in  
\_\_\_\_\_ (location) \_\_\_\_\_ and being sold to \_\_\_\_\_ (name of  
builder-dealer or borrower) has been manufactured in accordance with drawings  
and specifications on file in the Rural Development State Office and that the  
construction complies with applicable development standards, except as  
modified by HUD Acceptance document (SEB, RLA, ALA,) NO. \_\_\_\_\_, dated  
\_\_\_\_\_, and in compliance with the Rural Development Thermal  
Performance Construction Standards.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature or Authorized  
Official

\_\_\_\_\_  
Title

CERTIFICATION BY BUILDER-DEALER

\_\_\_\_\_ (Name of builder-dealer) \_\_\_\_\_ certifies that the foundation  
and other on-site work has been constructed in accordance with the drawings  
and specifications and the above structure or component has been erected,  
installed or applied in compliance with the applicable development standards.

It is understood that the manufacturer's certification does not relieve the  
builder/dealer of responsibility under the terms of the builder's warranty  
required by the National Housing Act.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Authorized  
Official

\_\_\_\_\_  
Title

GUIDE FOR  
DRAWINGS AND SPECIFICATIONS

This Exhibit applies to all new buildings to be constructed, including all single family housing and related facilities and, as applicable, farm housing and farm service buildings.

I. GENERAL: The documents recommended in this Exhibit correspond with the list of Exhibits in Chapter 3 of the Department of Housing and Urban Development (HUD) "Architectural Handbook for Building Single-Family Dwellings" No. 4145.2. This Exhibit may be used as a public handout and shall be used as a guide for drawings and specifications to be submitted in support of any type of application involving construction of major new buildings or extensive rehabilitation, alterations or additions to existing buildings. Descriptions of work forming or alterations or repairs need pertain only to work to be done and maybe in narrative form when acceptable to the County Supervisor. Complete and accurate drawings and specifications are necessary:

- A. To determine the acceptability of the proposed development,
- B. To determine compliance with the applicable standards and codes,
- C. To prepare a cost estimate, and
- D To provide a basis for inspections and the builder's warranty.

II. DRAWINGS FOR A SPECIFIC STRUCTURE: Drawings for individual single dwellings shall provide at least the following:

A. Plot Plan. Refer to Example Plot Plan No. 1, Attachment 1 to this Exhibit C (available in any Rural Development office). Ratio: 1:240 (1" = 20') (at scale, 1" = 20' or 1/16" = 1'0" minimum):

- 1. Lot and block number.
- 2. Dimensions of plot and north point.
- 3. Dimensions of front, rear and side yards.

4. Location and dimensions of garage, carport and other accessory buildings.
5. Location and sizes of walks, driveways and approaches.
6. Location and sizes of steps, terraces, porches, fences and retaining walls.
7. Location and dimensions of easements and established setback requirements, if any.
8. Elevations at the following points: (a) first floor of dwelling and floor of garage, carport and other accessory building; (b) finish curb or crown of street at points of extension of lot lines; (c) finish grade elevation at each principal corner of structure; (d) finish grade at bottom of drainage swales at extension of each side of structure as feasible.
9. The following additional elevations, as applicable, if the topography of the site or the design of the structure is such that special grading, drainage or foundations may be necessary. Examples are irregular or steeply sloping sites, filled areas on sites, or multi-level structure designs; (a) finish and existing grade elevations at each corner of the plot; (b) existing and finish grade at each principal corner of dwelling; (c) finish grade at both sides of abrupt changes of grade such as retaining walls, slopes, etc.; (d) other elevations that maybe necessary to show grading and drainage.
10. Indication of type and approximate location of drainage swales.
11. When an individual water supply and/or sewage system is proposed, drawings, specifications and other items prescribed in Paragraph V of this Exhibit.

B. Floor Plans.

1. Scale, 1:50 (1/4" = 1'0").
2. Floor plan of each floor and basement, if any. Show typical furniture locations to suggest intended use of each habitable space.

3. Plan of all attached terraces and porches, and of garage or carport.
4. If dwelling is of crawl-space type, a separate foundation plan. Slab-type foundation maybe shown on sections.
5. Direction, size and spacing of all floor and ceiling framing members, girders, columns or piers.
6. Location of all partitions and indication of door sizes, and direction of door swing.
7. Location and size of all permanently installed construction and equipment such as kitchen cabinets, closets, storage shelving, plumbing fixtures, water heaters, etc. Details of kitchen cabinets may be on separate drawing.
8. Location and symbols of all electrical equipment, including switches, outlets, fixtures, etc.
9. Heating system on separate drawing, or when it may be shown clearly it may be part of the floor or basement plan showing: (a) layout of system; (b) location and size of ducts, piping. Registers, radiators, etc.; (c) location of heating unit and room thermostat; (d) total calculated heat loss of dwelling including heat loss through all vertical surfaces, ceiling and floor. When a duct or piped distribution system is used, calculated heat loss of each heated space is required.
10. Cooling system on separate drawings or, as part of heating plan, floor or basement plan showing: (a) layout of system; (b) location and size of ducts, registers, compressors, coils, etc.; (c) heat gain calculations, including estimated heat gain for each space conditioned; (d) model number and Btu capacity of equipment or units in accordance with applicable Air Conditioning and Refrigeration Institute (ARI) or American Society of Refrigerating engineers (ASRE) Standard; (e) Btu capacity and total Kilowatt (KW) input at stated local design conditions; (f) if room or zone conditioners are used, provide location, size and installation details.

C. Exterior Elevations.

1. Scale, 1:50 (1/4" = 1'0"). Elevations, other than main elevation, which contain no special details may be drawn at 1:100 (1/8" = 1'0").

2. Front, rear and both side elevations, and elevations of any interior courts.
3. Windows and doors - indicate size unless separately scheduled or shown on floor plan.
4. Wall finish materials where more than one type is used.
5. Depth of wall footings, foundations, or piers, if stepped or at more than one level.
6. Finish floor lines.
7. Finish grade lines at buildings.

D. Details and Sections.

1. Section through exterior wall showing all details of construction from footings to highest point of road. Where more than one type of wall material is used, show each type. Scale, 1:25 (3/8" = 1'0") minimum.
2. Section through any portion of dwelling where rooms are situated various levels or where finished attic is proposed, Scale, 1:50 (1/4" = 1'0") minimum.
3. Section through stair wells, landings, and stairs, including headrod, clearances and surrounding framing. Scale, 1:50 (1/4" = 1'0") minimum.
4. Derails of roof trusses, if proposed, including connections and stress or test date with seal of architect or engineer responsible. Scale of connections, 1:25 (3/8" = 1'0") minimum.
5. Elevation and section through fireplace. Scale, 1:25 (3/8" = 1'0") minimum.
6. Elevations and section through kitchen cabinets, indicating shelving. Scale, 1:50 (1/4" = 1'0") minimum.
7. Sections and details of all critical construction points, fastening systems, anchorage methods, special structural items or special millwork. Scale as necessary to provide information, 1:25 (3/8" = 1'0") minimum.

III. MASTER DRAWINGS FOR GROUP STRUCTURES. Drawings for a group of structures (such as for several conditional commitments) may be submitted in lieu of drawings for each individual property when a number of applications are simultaneously submitted involving repetition of the same type structure.

A Master plot plan shall include the following:

1. Scale which will provide the following Information in a clear and legible manner.
2. North point.
3. Location and width of streets and rights-of-way.
4. Location and dimensions of all easements.
5. Dimensions of each lot.
6. Location of each dwelling on lot with basic dimensions.
7. Dimensions of front, rear and side yards.
8. Location and dimensions of garage, carports and other accessory buildings.
9. Identification of each lot by number and indication of basic plan and elevation type.
10. Location of walks, driveways and other permanent improvements.

B. Typical plot-plan for each basic type dwelling may be submitted in lieu of fully detailing each lot on master plot plan, when topography and lot arrangements present no individual planning or construction problems.

1. Information not shown on the typical plot plan shall be included on the master plot plan.
2. Typical plot plans shall not be used for corner lots, lots with irregular boundaries, lots involving pronounced topographic variations or other lots where individual detailing is necessary.
3. Location of dwelling on typical lot and full dimensions.

4. Location and dimensions of all typical improvements, such as garage, carport, accessory buildings, walks, drives, steps, porches, terraces, trees, shrubs, retaining walls, fences, etc.

C. Grading may be shown on separate grading plan or on the master plot plan. Scale shall be sufficiently large to provide the following information in clear and legible manner:

1. Contours of existing grade at intervals of not more than 1.524 m (5 feet). Intervals less than 1.524m (5 feet) may be required when indicated by the character of the topography.

2. Location of house and accessory buildings on each lot.

3. Identification of each lot by number.

4. Elevations in accordance with individual plot plan including bench mark and datum or, in lieu of finish grade elevations, contours of proposed finish grading may be submitted. Contour intervals selected shall be appropriate to the topography of the site.

5. Lot grading shall be shown by indicating protective slopes and approximate location of drainage swales.

6. Location of drainage outfall, if any drainage is not to a street.

D. Floor plans, elevations, sections and details shall be submitted for each basic plan. Alternate elevations to basic plan maybe shown at scale, 1:100 (1/8" = 1'0").

IV. SPECIFICATIONS. Form RD 1924-2, "Description of Materials," or other acceptable and comparable descriptions of all materials forms shall be submitted with the drawings. The forms shall be completed in accordance with the instructions on Form-RD 1924-2 to describe the materials to be used in the construction.

A. Form RD 1924-2 may be reproduced if size, format and printed text are identical to the current official form. When it is reproduced, the following deletions must be made:

1. All lines indicating Rural Development form numbers or other Government agency initials and/or numbers, and

2. The United States Government Printing Office (GPO) imprint and reference number.

B. The material identification shall be in sufficient detail to fully describe the material, size, grade and when applicable, manufacturer's model or identification numbers. When necessary, additional sheets must be attached as well as manufacturer's specification sheets for equipment and/or special materials, such as aluminum siding or carpeting.

V. INDIVIDUAL WATER SUPPLY AND SEWAGE DISPOSAL SYSTEMS. When an individual water and/or sewage disposal system is proposed, the following additional information must be submitted:

A. Approval and recommendations of other authorities.

1. A written opinion by the health authority having jurisdiction that the site is suitable and acceptable for the proposed system(s) and,
2. If available, a soils report from the local USDA-Soil Conservation Service and any recommendations they may have.
3. Approval of appropriate environmental control authority.
4. A signature of the health authority on the plot plan indicating approval of the design of the proposed system.

B. Plot Plan. Refer to Example Plot Plan No. 2, Attachment 2 to this Exhibit C (available in any Rural Development office).

1. Location and size of septic tank, distribution box, absorption field or bed, seepage pits and other essential parts of the sewage disposal system and distance to all individual wells, open streams or drainageways.
2. Location of well, service line and other essential parts of the water supply system and distance to other wells and/or sewage disposal systems.
3. Exact location of individual systems (water or sewage) on adjacent properties and description of system, if available.

C. Construction details of all component parts of individual water supply and sewage disposal systems shall clearly indicate material, equipment and construction. Extra sheets and drawings should be added as necessary to fully explain the proposed installation.

Attachment 1: Example Plot Plan No. 1

Attachment 2: Example Plot Plan No. 2

Exh. C, Attachments 1 & 2 in PDF ONLY.

THERMAL PERFORMANCE  
CONSTRUCTION STANDARDS

I. PURPOSE: This Exhibit prescribes thermal performance construction standards to be used in all housing loan and grant programs. These requirements shall supersede the thermal performance requirements in any of the development standards in §1924.4 (h) of this subpart.

II. POLICY: All loan or grant applications involving new construction (except for new Single Family Housing (SFH)) and all applications for conditional commitments (except for new SFH) shall have drawings and specifications prepared to comply with paragraphs IV A or C and IV D of this Exhibit. All new SFH construction shall have drawing and specifications prepared to comply with paragraph IV F of this Exhibit. All existing dwellings to be acquired with Rural Development loan funds shall be considered in accordance with paragraph IV B or C of this Exhibit.  
(Revised 08-26-94, SPECIAL PN.)

III. DEFINITIONS:

A. British thermal unit (Btu) means the quantity of heat required to raise the temperature of one pound (.4535 KM.) of water by one degree Fahrenheit (F). For example, one Btu is the amount of heat needed to raise the temperature of one pound of water from 59 degrees F to 60 degrees F.

B. Glazing is the material set into a sash or door when used as a natural light source and/or for occupant's views of the outdoors.

C. "R" value, thermal resistance, is a unit of measure of the ability to resist heat flow. The higher the R value, the higher the insulating ability.

D. "U" value is the overall coefficient of heat transmission and is the combined thermal value of all the materials in a building section. U is the reciprocal of R. Thus  $U = 1/R$  or  $R = 1/U$  or  $1/C$  where C is the thermal conductance and is the unit of measure of the rate of heat flow for the actual thickness of a material one square foot in area at a temperature of one degree Fahrenheit. The lower the U value, the higher the insulating ability.

E. Winter degree-day is a unit based on temperature difference and time. For any one day, when the mean temperature is less than 65 degrees F (18.3 degrees Celsius), there are as many degree-days as the number of degrees difference between the mean temperature for the day and 65 degrees F. The daily mean temperature is computed as half the total of the daily maximum and daily minimum temperatures.

F. CABO MODEL ENERGY CODE, 1992 EDITION (MEC-92) - This code sets forth the minimum energy/thermal requirements for the design of new buildings and structures or portions thereof and additions to existing buildings. The MEC is maintained by the Council of American Building Officials (CABO). (Added 08-26-94, SPECIAL PN.)

IV. MINIMUM REQUIREMENTS

A. All multifamily dwellings to be constructed with Rural Development loan and/or grant funds and all repair, remodeling, or renovation work performed on single family and multifamily dwellings with Rural Development loan and/or grant funds shall be in conformance with the following, except as provided in paragraphs IV C 3 and IV D of this Exhibit: (Revised 08-26-94, SPECIAL PN.)

NEW CONSTRUCTION  
MAXIMUM U VALUES FOR CEILING, WALL, AND FLOOR  
SECTION OF VARIOUS CONSTRUCTION

Winter Degree Days (Note 1)	Ceilings (Note 2)	Walls	Floors (Note 3)	Glazing (Note 4)	Doors (Note 5)
1000 or less	.05	.08	.08	1.13	----
1001 to 2500	.04	.07	.07	.69	----
2501 to 4500					Storm door if hollow core door
.05	.69	if over 25% glass			.03 .05
4501 to 6000	.03	.05	.05	.47	Storm Door
6001 or more	.026	.05	.05	.47	Storm Door

(U values are not adjusted for framing. Values calculated for components may be rounded. For example, a total R Value of 18.88 converts to a U value of .0529 rounded to .05)

Note 1. Winter degree-days may be obtained from the ASHRAE Handbook; the "NAHB insulation Manual for Homes/Apartments"; local utilities; and the National Climatic Center, Federal Building, Asheville, NC. Manuals are available from NAHB RF, Rockville, MD 20850, or NMWIA, 382 Springfield Avenue, Summit, NJ 07901. Other sources of degree day data may be used if available from a recognized authority.

Note 2. Insulation must be continuous (i.e. no gaps) above all ceiling joists. In pitched roof construction, compression of insulation at the outside building walls is permitted to allow a 1" ventilation space under the roof sheathing. For any loose fill insulation, a baffle must be provided. Raised trusses are not required.

Note 3. For floors of heated spaces over unheated basements, unheated garages or unheated crawl spaces, the U value of floor section shall not exceed the value shown. A basement, crawl space, or garage shall be considered unheated unless it is provided with a positive heat supply to maintain a minimum temperature of 50 degrees F. Positive heat supply is defined by ASHRAE as heat supplied to a space by design or by heat losses occurring from energy-consuming systems or components associated with that space."

Where the walls of an unheated basement or crawl space are insulated in lieu of floor insulation, the total heat loss attributed to the floor from the heated area shall not exceed the heat loss calculated for floors with required insulation.

Insulation may be omitted from floors over heated basement areas or heated crawl spaces if foundation walls are insulated. The U value of foundation wall sections shall not exceed the value shown. This requirement shall include all foundation wall area, including header joist (band joist), to a point 50 percent of the distance from a finish grade to the basement floor level. Equivalent Uo configurations are acceptable.

MAXIMUM U VALUES OF THE FOUNDATION WALL Sections OF HEATED BASEMENT NOT CONTAINING HABITABLE LIVING AREA OR HEATED CRAWL SPACE

Winter Degree Days (65 F Base)	Maximum U Value	Glazing*
2500 or less	No requirement	1.13
2501 to 4500	0.17	1.13
4501 or more	0.10	0.69

\*Glazing in heated basement shall be limited to 5 percent of floor area unless alternative Uo combination is documented.

Note 4. Sliding glass doors are considered as glazing. The glazing value is for glass only. Glazing shall be limited to 15 percent of the gross area of all exterior walls enclosing heated space, except when demonstrated that the winter daily solar heat gain exceeds the heat loss and the glass area is properly screened from summer solar heat gain.

Note 5. 1-3/4 inch metal-faced door systems with rigid insulation core and durable weatherstripping providing a "U" value equivalent to a wood door with storm door and an infiltration rate no greater than .50 cfm per foot of crack length tested according to ASTM E-283 at 1.567 psf of air pressure, may be substituted for a conventional door and storm door. All doors shall be weatherstripped. Any glazed areas must be double-glazed.

MINIMUM R VALUES OF PERIMETER INSULATION FOR SLABS-ON-GRADE

Winter Degree-Days (65 F Base)	Minimum R Values*	
	Heated Slab	Unheated Slab
500 or less	2.8	----
1000	3.5	----
2000	4.0	2.5
3000	4.8	2.8
4000	5.5	3.5
5000	6.3	4.2
6000	7.0	4.8
7000	7.8	5.5
8000	8.5	6.2
9000	9.2	6.8
10000 or greater	10.0	7.5

\*For increments between degree days shown, R values may be interpolated.

B. All existing dwellings to be purchased with RH loan and grant funds shall be insulated in accordance with the following:

EXISTING CONSTRUCTION

MAXIMUM U VALUES FOR CEILING, WALL AND FLOOR SECTION OF VARIOUS CONSTRUCTION

Winter Degree Days (Note 1)	Ceilings	Walls (Note 2)	Floors (Note 3)	Glazing	Doors (Note 5)
1000 or less	.05		.08	1.13	---
1001 to 2500			.07	.69	---
2501 to 4500	.03		.05	.69	Storm door if hollow Core door or if over 25% glass
4501 to 6000	.03		.05	.69	Storm Door
6001 or 7000	.026		.05	.69	Storm Door
7001 or more	.026		.05	.69	Storm Door

(U values are not adjusted for framing. Values calculated for components may be rounded. For example, a wall section with a total R Value of 18.88 converts to a U value of .0529 rounded to .05)

Note 1. Winter degree days may be obtained from the ASHRAE Handbook; the "NAHB Insulation Manual for Homes/Apartments;" local utilities; and the National Climatic Center, Federal Building, Asheville, NC. Manuals are available from NAHB RF, Rockville, MD 20850, or NMWIA, 382 Springfield Avenue, Summit, NJ 07901. Other sources of degree day data may be used if available from a recognized authority.

Note 2. Walls shall be insulated as near to new construction standards as economically feasible. Any exterior wall framing exposed during repair or rehabilitation work shall have vapor barrier installed and be fully insulated.

Note 3. For floors of heated spaces over unheated basements, unheated garages or unheated crawl spaces the U value of floor section shall not exceed the value shown.

A basement, crawl space or garage shall be considered unheated unless it is provided with a positive heat supply to maintain a minimum temperature of 50 degrees F. Positive heat supply is defined by ASHRAE as heat supplied to a space by design or by heat Losses occurring from energy-consuming systems or components associated with that space."

Where the walls of an unheated basement or crawl space are insulated in lieu of floor insulation, the total heat loss attributed to the floor from the heated area shall not exceed the heat loss calculated for floors with required insulation.

Insulation may be omitted from floors over heated basement areas or heated crawl spaces if foundation walls are insulated. The U value of foundation wall sections shall not exceed the value shown. This requirement shall include all foundation wall area, including header joist (band joist), to a point 50 percent of the distance from a finish grade to the basement floor level. Equivalent Uo configurations are acceptable.

MAXIMUM U VALUES OF THE FOUNDATION WALL SECTIONS OF HEATED BASEMENT NOT CONTAINING HABITABLE LIVING AREA OF HEATED CRAWL SPACE

Winter Degree Days (65 F Base)	Maximum U Value	Glazing *
2500 or less	No requirement	1.13
2501 to 4500	0.17	1.13
4501 or more	0.10	0.69

\*Glazing in heated basement shall be limited to 5 percent of floor area unless alternative to combination is documented.

Note 4. Slab edge insulation should be provided wherever practical in areas of 2500 or more winter degree-days. Rigid insulation placed on the exterior face of the slab shall be protected by a durable and weather resistant material.

Note 5. Storm doors are not required for double doors, sliding doors or others where installation would be economically infeasible. 1-3/4 inch metal-faced door systems with rigid insulation core and durable weatherstripping providing a "U" value equivalent to a wood door with storm door and an infiltration rate no greater than .50 cfm per foot crack length, tested according to ASTM E-283 at 1.567 psf of air pressure, may be substituted for a conventional door and storm door. All doors shall be weatherstripped.

C. Optional Standards. Housing design not in compliance with the requirements of paragraphs IV A or B of this Exhibit may be approved in accordance with the provisions of this paragraph. Requests for acceptance proposed under paragraph C 1 below, must be approved by the State Director. Requests for acceptance of site-built housing proposed under paragraph C 2 must be approved by the Administrator. Requests for acceptance of manufactured housing proposed under paragraph C 2 may be approved by the State Director. All submissions of proposed options to the State Director or Administrator shall contain complete descriptions of materials, engineering data, test data (when U values claimed are lower than the ASHRAE Handbook of Fundamentals), and calculations to document the validity of the proposal. All data and calculations will be based upon the current edition of the ASHRAE Handbook of Fundamentals or other universally accepted data sources. (Revised 2-15-89, PN 102)

1. Overall "U" values for envelope components. The following requirements shall be used in determining acceptable options to the requirements of paragraphs IV A and IV B of this Exhibit.

a.  $U_o$  (gross wall) - Total exterior wall area (opaque wall and window and door) shall have a combined thermal transmittance value ( $U_o$  value) not to exceed the values shown in Attachment 1 to this Exhibit D (available in any Rural Development office). Equation 1 in Attachment 1 in shall be used to determine acceptable combinations to meet the requirements.

b.  $U_o$  (gross ceiling) - Total ceiling area (opaque ceiling and skylights) shall have a combined thermal transmittance value ( $U_o$  value) not to exceed the values shown in Attachment 2 to this Exhibit D (available in any Rural Development office). Equation 2 in Attachment 2 shall be used to determine acceptable combinations to meet the requirements.

2. Overall structure performance. The following requirements shall be used in determining acceptable options to the requirements of paragraphs IV A and B of this Exhibit.

a. The methodology must be cost effective to the energy user, and must not adversely affect the structural capacity, durability or safety aspects of the structure.

b. All data and calculations must show valid performance comparisons between the proposed option and a structure comparable in size, configuration, orientation and occupant usage designed in accordance with paragraphs IV A or B. Structures may be considered for Rural Development loan consideration which can be shown by accepted engineering practice to have energy consumption equal to or less than those which would be attained in a representative structure utilizing the requirements of paragraphs IV A or B.

3. Special consideration for seasonally occupied farm labor housing. The following sets forth the minimum acceptable options to the requirements of paragraphs IV A or B of this Exhibit for seasonally occupied housing serving as security for farm labor housing loans and grants.

a. When the period of occupancy does not encounter 500 or more heating degree-days (HDD) as determined by an average of the previous 10 years based upon local climatological data published by the National Oceanic and Atmospheric Administration, Environmental Data Service, the standards of paragraphs IV A or B will not apply.

b. When the period of use exceeds 500 HDD, the 10-year average value for the period of occupancy shall be used to determine the degree to which the thermal insulation requirements of paragraphs IV A or B shall apply.

c. If mechanical cooling is provided and the period of occupancy encounters more than 700 cooling degree-days (CDD), as determined by an average of the previous 8 years based upon local climatological data published by the same source cited in paragraph IV C 3 a above, the thermal insulation requirements for 1,000 and less degree-days as stated in paragraph IV A or B shall apply.

D. Energy efficient construction practices. This section prescribes those items of design and quality control which are necessary to guarantee the energy efficiency of homes built according to the standards of this Exhibit. Also included are recommendations for extra energy efficiency in dwellings. This section does not apply to new SFH construction. (Revised 08-26-94, SPECIAL PN.)

1. Infiltration.

a. Requirements: All construction shall be performed in such a manner as to provide a building envelope free of excessive infiltration.

(i) Caulking and sealants. Exterior joints around windows and door frames, between wall cavities and window or door frames, between wall and foundation, between wall and roof, between wall panels, at penetrations of utility services through walls, floors and roofs, and all other openings in the exterior envelope shall be caulked, gasketed, weatherstripped, or otherwise sealed. Caulking shall be silicone rubber base or butyl rubber base, conforming to Federal Specifications TT-S-1543 and TT-S-1657 respectively, or materials demonstrating equivalent performance in resilience and durability.

(ii) Windows shall comply with ANSI 134.1, NWMA 15-2; the air infiltration rate shall not exceed 0.5 ft<sup>3</sup>/min per ft. of sash crack.

(iii) Sliding glass doors shall comply with ANSI 134.2, NWMA 15-3; the air infiltration rate shall not exceed .5 ft<sup>3</sup>/min per square ft. of door area.

(iv) All insulation placed in open cavity walls shall be installed so that all space behind electrical switches and receptacles, plumbing, ductwork and other obstructions in the cavity are insulated as completely as possible. Insulation shall be omitted on the side facing the conditioned area; however, the vapor barrier in walls must not be cut or destroyed.

b. Recommendations:

(i) Wrap outside corners of wall sheathing with 15 lb. Asphalt impregnated building felt before siding application.

(ii) Utilize vestibules for entry doors, especially those facing into the direction of winter wind.

(iii) Install plumbing, mechanical and electrical components in interior partitions as much as possible. All water piping should be insulated from freezing temperatures.

2. Heating and/or Cooling Equipment.

a. Requirements: All mechanical equipment for heating and/or cooling habitable space shall be designed to provide economy of operation.

(i) All space heating equipment (including fireplaces) requiring combustion air shall be sealed combustion types, or be located in a nonconditioned area (such as heated basements) or adequate combustion air must be provided from outside the conditioned space.

(ii) All ductwork shall be designed and installed to minimize leakage. All metal to metal connections shall be mechanically joined and taped.

b. Recommendations:

(i) Whenever possible, locate ductwork inside of conditioned areas in dropped ceilings, interior partitions or other similar areas.

(ii) Locate outside cooling units in areas not subject to direct sunlight or heat buildup.

3. Vapor Barrier.

a. Requirements: Adequate vapor barriers must be provided adjacent to the interior finish material of the wall or other closed envelope components which do not have ventilation space on the nonconditioned side of the insulation.

(i) A vapor barrier at the inside of the wall or other closed envelope component must have a permeability (perm) rating less than that of any other material in that component and in no case have a perm rating greater than one. All vapor barriers must be sealed around all openings in the interior surface. Vapor barriers are not required in ceilings and floors. Continuous vapor barriers on ceilings, walls, and floors require adequate moisture vapor control in the conditioned space.

(ii) All vapor producing or exhaust equipment shall be ducted to the outside and equipped with dampers. This equipment includes rangehoods, bathroom exhaust fans, and clothes dryers. If a dwelling design proposes the use of windows to satisfy the kitchen and/or bathroom ventilation requirements of the development standards, the incorporation of dehumidification equipment should be considered in accordance with paragraph IV D 3 b. Exhaust of any equipment shall not terminate in an attic or crawl space.

b. Recommendation: Forced air heating/cooling systems should include humidification/dehumidification systems where conditions indicate.

E. [Reserved]

F. New SFH construction. New SFH construction shall meet the requirements of CABO Model Energy Code, 1992 Edition (MEC-92). (Added 08-26-94, SPECIAL PN.)

G. New Manufactured Housing. The Uo Value Zone indicated on the "Heating Certificate" for comfort heating shall be equal to or greater than the HUD Zone listed in the following table: (Added 10-04-99, SPECIAL PN.)

RHS Climate Zones (winter degree days)	FMHCSS (HUD Code) Uo Value Zones
0 - 1000	1
1001 - 2500	2
2501 - 4500	2
4501 - 6000	3
> 6000	3

**EXAMPLE:** If a manufactured home is to be located in a geographic area having between 2501 and 4500 RHS winter degree days, the Agency will accept a Uo value Zone 2 unit or Zone 3 unit constructed to the HUD Federal Manufactured Home Construction and Safety Standard (FMHCSS).

If a central air conditioning system is provided by the home manufacturer a "Comfort Cooling Certificate" must be permanently affixed to an interior surface of the unit that is readily visible. This certificate may be combined with the heating certificate on the data plate.

V. GENERAL DESIGN RECOMMENDATIONS:

- A. Orient homes with greatest glass area facing south with adequate overhangs to control solar gain during non-heating periods. Examples of proper roof overhangs are given in Attachment 3 to this Exhibit D (available in any Rural Development office).
- B. Arrange plantings with evergreen wind buffers on north side and deciduous trees on south.
- C. Whenever possible, orient entry door away from winter winds.
- D. Design house with simple shape to minimize exterior wall area.
- E. Minimize glass areas within constraints of required light and ventilation, applicable safety codes, and other appropriate consideration.
- F. Minimize the amount of paved surface adjacent to the structure where heat gain is not desirable.

VI. STATE SUPPLEMENTS: State supplements or policy will not be issued or adopted to either supplement or set requirements different from those of this Exhibit without the prior written approval of the National Office.

1924-A, Exhibit D, Attachments 1, 2, & 3 in PDF ONLY.

EVOLUNTARY NATIONAL MODEL BUILDING CODES

The following documents address the health and safety aspects of buildings and related structures and are voluntary national model building codes as defined in §1924.4 (h) (2) of this subpart. Copies of these documents may be obtained as indicated below:

<u>BUILDING CODE</u>	<u>PLUMBING CODE</u>	<u>MECHANICAL CODE</u>	<u>ELECTRICAL CODE</u>
BOCA BASIC/National Building Code (1)	BOCA Basic/National Plumbing Code (1)	BOCA Basic/National Mechanical Code (1)	National Electrical Code (5)
Standard Building Code (2)	Standard Plumbing Code (2)	Standard Mechanical Code (2)	
Uniform Building Code (3)	Uniform Plumbing Code (3)	Uniform Mechanical Code (3)	
CABO One and Two Family Dwelling Code (4)			

- (1) Building Officials and Code Administrators International, Inc.  
4051 West Flossmoor Road  
Country Club Hills, Illinois 60477
- (2) Southern Building Code Congress International, Inc.  
900 Montclair Road  
Birmingham, Alabama 35213-1206
- (3) International Conference of Building Officials  
5360 South Workman Mill Road  
Whittier, California 90601
- (4) Council of American Building Officials  
5203 Leesburg Pike  
Falls Church, Virginia 22041
- (5) National Fire Protection Association  
Batterymarch Park  
Quincy, Massachusetts 02269

oOo

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS: that

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

a \_\_\_\_\_, hereinafter called PRINCIPAL and  
(Corporation, Partnership or Individual)

\_\_\_\_\_  
(Name of Surety)

hereinafter called SURETY, are held and firmly bound unto \_\_\_\_\_

\_\_\_\_\_  
(Name of Owner)

\_\_\_\_\_  
(Address of Owner)

hereinafter called OWNER and the United States of America acting through Rural Development hereinafter referred to as GOVERNMENT, and unto all persons, firms, and corporations who or which may furnish labor, or who furnish materials to perform as described under the contract and to their successors and assigns in the total aggregate penal sum of \_\_\_\_\_,  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_) in lawful money of the United States, for the payment or which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the PRINCIPAL entered into a certain contract with the OWNER, dated the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, a copy of which is hereto attached and made a part hereof for the construction of:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
NOW, THEREFORE, if the PRINCIPAL shall properly make payment to all persons, firms, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery;, equipment and tools, consumed or used in connection with the construction of such WORK, and for all labor cost incurred in such WORK including that by a SUBCONTRACTOR, and to any mechanic or materialman lienholder whether it acquires its lien by operation of State or Federal law; then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, that beneficiaries or claimants hereunder shall be limited to the SUBCONTRACTORS, and persons, firms, and corporations having a direct contract with the PRINCIPAL or its SUBCONTRACTOR.

PROVIDED, FURTHER, that the said SURETY for value received hereby stipulates and agrees that no change, extension of the, alteration or addition to the terms of the contract or to the WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any way affect its obligation on this BOND, and in does hereby waive notice of any such change, extension of time, alteration or addition to the terms of this contract or to the WORK or to the SPECIFICATIONS.

PROVIDE, FURTHER, that no suit or action shall be commenced hereunder by any claimant: (a) Unless claimant, other than one having a direct contract with the PRINCIPAL (or with the GOVERNMENT in the event the GOVERNMENT is performing the obligations of the OWNER), shall have given written notice to any two of the following: The PRINCIPAL, the OWNER, or the SURETY above named within ninety (90) days after such claimant did or Performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by register mail or certified mail, postage prepaid, in an envelope addressed to the PRINCIPAL, OWNER, or SURETY, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer. (b) After the expiration of one (1) year following the date of which PRINCIPAL ceased work on said CONTRACT, it being understood, however, that if any limitation embodied in the BOND is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

PROVIDED, FURTHER, that it is expressly agreed that this BOND shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Contract not increasing the contract price more than 20 percent, so as to bind the PRINCIPAL and the SURETY to the full and faithful performance of the Contract as so amended. The term "Amendment", wherever used in this BOND and whether referring to this BOND, the contract or the loan Documents shall include any alteration, addition, extension or modification of any character whatsoever.

PROVIDED, FURTHER, that no final settlement between the OWNER or GOVERNMENT and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS THEREOF, this instrument is executed in \_\_\_\_\_ Counterparts,  
Number  
each one of which shall be deemed an original, this the \_\_\_\_\_ day of  
\_\_\_\_\_.  
ATTEST:

\_\_\_\_\_  
Principal

\_\_\_\_\_  
(Principal) Secretary

(SEAL)

By \_\_\_\_\_ (s)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
Witness as to Principal

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
Surety

ATTEST:

\_\_\_\_\_  
Witness as to Surety

\_\_\_\_\_  
(Address)

By \_\_\_\_\_  
Attorney-in-Fact

\_\_\_\_\_  
(Address)

NOTE: Date of BOND must not be prior to date of Contract.

If CONTRACTOR is partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

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PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS: that

\_\_\_\_\_  
(Name or Contractor)

\_\_\_\_\_  
(Address or Contractor)

a \_\_\_\_\_, hereinafter called PRINCIPAL, and  
(Corporation, Partnership, or Individual)

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

hereinafter called SURETY, are held and firmly bound unto \_\_\_\_\_

\_\_\_\_\_  
(Name of Owner)

\_\_\_\_\_  
(Address of Owner)

hereinafter called OWNER, and the United States of America acting through  
Rural Development hereinafter referred to as the GOVERNMENT in the total  
aggregate penal sum of

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_) in lawful  
money of the United States, for the payment of which sum well and truly to be  
made, we bind ourselves, our heirs, executors, administrators, successors, and  
assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the PRINCIPAL entered  
into a certain contract with the OWNER, dated the \_\_\_\_\_ day of \_\_\_\_\_  
19\_\_\_\_, a copy of which is hereto attached and made a part hereof for the  
construction of:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
NOW, THEREFORE, if the PRINCIPAL shall well, truly and faithfully perform its  
duties, all the undertakings, covenants, terms, conditions, and agreements of  
said contract during the original term thereof, and any extensions thereof  
which may be granted by the OWNER, or GOVERNMENT, with or without notice to  
the SURETY and during the guaranty period and if the PRINCIPAL shall satisfy

all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER and GOVERNMENT from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER and GOVERNMENT all outlay and expense which the OWNER and GOVERNMENT may incur in making good any default, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the liability of the PRINCIPAL AND SURETY hereunder to the GOVERNMENT shall be subject to the same limitations and defenses as maybe, Available to then against a claim hereunder by the OWNER, provided, however, that the GOVERNMENT may, at its option, perform any obligations of the OWNER required by the contract.

PROVIDED, FURTHER, that the said SURETY, for value received hereby, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that it is expressly agreed that the BOND shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Contract not increasing the contract price more than 20 percent, so as to bind the PRINCIPAL and the SURETY to the full and faithful performance of the CONTRACT as so amended. The term "Amendment", wherever used in this BOND, and whether referring to this BOND, the Contract or the Loan Documents shall include any alteration, addition, extension, or modification of any character whatsoever.

PROVIDED, FURTHER, that no final settlement between the OWNER or GOVERNMENT and the PRINCIPAL shall abridge the right of the other beneficiary hereunder, whose claim may be unsatisfied. The OWNER and GOVERNMENT are the only beneficiaries hereunder.

IN WITNESS WHEREOF, this instrument is executed in \_\_\_\_\_ counterparts,  
Number  
each one of which shall be deemed an original, this the \_\_\_\_\_ day of  
\_\_\_\_\_.

ATTEST:

\_\_\_\_\_  
Principal  
\_\_\_\_\_  
(Principal) Secretary

(SEAL)

By \_\_\_\_\_ (s)

\_\_\_\_\_  
Witness as to Principal  
\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
Surety

ATTEST:

\_\_\_\_\_  
Witness as to Surety  
\_\_\_\_\_  
(Address)

By \_\_\_\_\_  
Attorney-in-Fact  
\_\_\_\_\_  
(Address)

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PROHIBITION OF LEAD-BASED PAINTS

I. PURPOSE: This Exhibit prescribes the methods to be used to comply with the requirements of the Lead-Based Paint Poisoning Prevention Act, Public law 91-695, as amended, (42 U.S.C. 4801 et seq.) and the amendment to Section 501 (3) of Public law 91-695 (42 U.S.C. 4841 (3)) as amended by the National Consumer Health Information and Health Promotion Act of 1976, Public Law 94317.

II. POLICY: Rural Development shall not permit the use of lead-based paint on applicable surfaces of any housing or buildings purchased, repaired, or rehabilitated for human habitation with financial assistance provided by this agency. Paints used on applicable surfaces shall not contain more than 0.06 percent lead by weight calculated as lead metal in the total nonvolatile content of liquid paints or in the dried film of paint already applied.

III. DEFINITIONS:

A. Housing and buildings mean any house, apartment, or structure intended for human habitation. This includes any institutional structure where persons reside, such as an orphanage, boarding school, dormitory, day care center or extended care facility, college housing, domestic or migratory labor housing, hospitals, group practice facilities, community facilities, and business or industrial facilities.

B. Applicable surfaces means all interior surfaces, whether accessible or not, and those exterior surfaces which are readily accessible to children under 7 years of age, such as stairs, decks, porches, railings, windows, and doors.

C. Lead-based paint means any paint containing more than .5 of 1 percentum lead by weight, or with respect to paint manufactured after June 22, 1977, lead-based paint containing more than six one-hundredths of 1 percentum lead by weight.

IV. REQUIREMENTS:

A. All new housing and buildings shall comply with paragraph II of this Exhibit H.

B. For all existing housing and buildings built after 1950, on which a loan is closed after July 19, 1978, Rural Development requires that the applicant, borrower or tenant be notified of the potential hazard of leadbased paints, of the symptoms and treatment of lead poisoning, and of the importance and availability of maintenance and removal techniques for eliminating such hazards. This will be accomplished by providing each applicant, borrower and/or tenant with a copy of Attachment 1 to this Exhibit H, "Lead-based Paint Hazards, Symptoms, Treatment and Techniques for Eliminating Hazards," available in any Rural Development County Office. Copies of Attachment 1 may be obtained by the County Supervisor from the Finance Office, 1520 Market Street, St. Louis, MO. 63103.

C. For all existing housing or buildings built before 1950 on which a loan is closed after July 19, 1978, Rural Development requires that the applicant, borrower and/or tenant be notified as in paragraph IV B and a copy of Attachment 2 to this Exhibit H, "Caution Note on lead-Based Paint Hazard," available in any Rural Development County Office, shall be delivered to the hands of the applicant, borrower and/or tenant.

D. For all property transfers and inventory property sales, Attachments 1 and 2 to this Exhibit H (available in any Rural Development office) shall be handed to the purchaser by the Rural Development representative.

E. All inventory housing or buildings built before 1950 to be repaired, renovated, or rehabilitated shall have tests for lead content, and where found to be hazardous, shall have any interior lead-based paint removed entirely. Loose or cracked surfaces shall be cleaned down to the base surface before repainting with a paint containing not more than six one-hundredths of 1 percentum lead by weight in the total nonvolatile content of the paint or the equivalent measure of lead in the dried film of paint already applied or both. Contracting officers shall include the following provision prohibiting the use of lead-based paint in all contracts and subcontracts for construction or rehabilitation of housing or buildings:

LEAD-BASED PAINT PROHIBITION

No lead-based paint containing more than .5 of 1 percentum lead by weight (calculated as lead metal) in the total nonvolatile content of the paint, or the equivalent measure of lead in the dried film of paint already applied, or both, or with respect to paint manufactured after June 22, 1977, no lead-based paint containing more than .06 of 1 percentum lead by weight (calculated as lead metal) in the total nonvolatile content of the paint, or the equivalent measure of lead in the dried film of paint already applied, or both, shall be used in the construction or rehabilitation of residential structures under this contract or any subsequent subcontractors.

Authority: This amendment is made under provisions of 5 USC 301, 40 USC 486 (c).

Done at \_\_\_\_\_, \_\_\_\_\_ this \_\_\_\_\_  
day of \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_  
Rural Development Representative

V SUMMARY: Section 401 of the Lead-Based Paint Poisoning Prevention Act as amended by the National Consumer Health Information and Health Promotion Act of 1976, PL 94-317, provides a requirement that each federal agency issue regulations and to take such other steps necessary to prohibit the use of leadbased paint on all applicable surfaces in Federal and Federally-assisted construction or rehabilitation of residential structures. The Lead-Based Paint Poisoning Prevention Act, PL 91-695, January 13, 1971, provides for grants to units of general local government in any state for the purpose of detecting and treating incidents of lead-based paint poisoning. Title II of this Act also provides for grants to the same units to identify those area of risk including testing to detect the presence of lead-based paint on surfaces of residential housing.

U.S. Department of Agriculture  
Rural Development

Notice to Purchasers and Renters of Housing Constructed  
Before 1978

Warning - Lead-Based Paint Hazards

If the home you intend to purchase or rent was built before 1978, it may contain lead-based paint. About three out of every four pre-1978 buildings have lead-based paint.

YOU NEED TO READ THIS  
NOTICE ABOUT LEAD  
WHAT IS LEAD POISONING?

Lead poisoning means having high concentrations of lead in the body. LEAD CAN:

- o Cause major health problems, especially in children under 7 years old.
- o Damage a child's brain, nervous system, kidneys, hearing, or coordination.
- o Affect learning.
- o Cause behavior problems, blindness, and even death.
- o Cause problems in pregnancy and affect a baby's normal development.

WHO GETS LEAD POISONING?

Anyone can get lead poisoning, but children under 7 years old are at the greatest risk, because their bodies are not fully grown and are easily damaged. The risk is worse if the child:

- o Lives in the older home (built/constructed before 1978, and even more so before 1960).
- o Does not eat regular meals (an empty stomach accepts lead more easily).
- o Does not eat enough foods with iron or calcium.
- o Has parents who work in lead-related jobs.
- o Has played in the same places as brothers, sisters, and friends who have been lead poisoned. (Lead poison cannot be spread from person to person. It comes from contact with lead.)

Women of childbearing age are also at risk, because lead poisoning can cause miscarriages, premature births, and the poison can be passed onto their unborn babies.

#### WHERE DOES LEAD POISONING COME FROM?

The lead hazards that children most often touch are lead dust, leaded soil, loose chips and chewable surfaces painted with lead-based paint. A child may be harmed when it puts into its mouth, toys, pacifiers, or hands that have leaded soil or lead dust on them. Lead also comes from:

- o Moving parts of windows and doors that can make lead dust and chips.
- o Lead-based paint on windows, doors, wood trim, walls and cabinets in kitchens and bathrooms, on porches, stairs, railings, fire escapes, and lamp posts.
- o Soil next to exterior of buildings that have been painted with lead-based paint and leaded gasoline dust in soil near busy streets.
- o Drinking water (pipes and solder).
- o Parents who may bring lead dust home from work on skin, clothes, and hair.
- o Colored newsprint and car batteries.
- o Highly glazed pottery and cookware from other countries.
- o Removing old paint when refinishing furniture.

In recent years some uses of lead in products that could cause lead poisoning have been reduced or banned. This is true for lead in gasoline, lead in solder used in water pipes, and lead in paint. Still, a great deal of lead remains in and around older homes, and lead-based paint and accompanying lead dust are seen as the major source.

#### HOW DO I KNOW IF MY CHILD IS AFFECTED?

Is your child:

- |                             |                             |
|-----------------------------|-----------------------------|
| o Cranky?                   | o Unable to concentrate?    |
| o Vomiting?                 | o Hyperactive?              |
| o Tired?                    | o Playing with children who |
| o Unwilling to eat or play? | have these symptoms?        |
| o Complaining of stomach    |                             |
| aches or headaches?         |                             |

These can be signs of lead poisoning. However, your children might not show these signs and yet be poisoned; only your clinic or doctor can test for sure.

## WHAT CAN I DO ABOUT LEAD POISONING?

Your child should first be tested for lead in the blood between the age of 6 months and 1 year. Ask the clinic or your doctor to perform the test during a regular checkup. Your doctor will tell you how often you should have your child tested after that. A small amount of lead in the blood may not make your child seem very sick, but it can affect how well he or she can learn. If your child does have high amounts of lead in the blood, you should seek treatment and have your home tested for lead-based paint and lead dust.

## HOW DO I KNOW IF MY HOME HAS LEAD-BASED PAINT?

Rural Development inspection does not determine whether a home actually has lead-based paint. It only identifies whether there is defective paint in a home that might have lead-based paint. Therefore, the only way you can know for sure is to have the home tested by a qualified firm or laboratory. Both the interior and exterior should be tested. You should contact the local health or environmental office for help.

## WHAT DO I DO IF MY HOME DOES HAVE LEAD?

Do not try to get rid of lead-based paint yourself. You could make things worse for you and your family. If your home contains lead-based paint and you are the owner, contact a company that specializes in lead-based paint abatement. Have professionals do the job correctly and safely. This may cost thousands of dollars, depending on the amount of lead-based paint found in your home, but it will also protect you and your children from the effects of lead poisoning. If you are a renter, notify the management or landlord immediately and cooperate with the management's office or landlord's efforts to repair any deficiencies and keep your home in good shape. To prevent peeling paint, most housing should be repainted every 3 to 5 years. If your home has not been repainted within this period of time, inform the management office or landlord. In the meantime, there are things you can do immediately to protect your child:

- o Keep your child away from paint chips and dust.
- o Wet-mop floors and wipe down surfaces often, especially where the floors and walls meet. Be sure to clean the space where the window sash rests on the sill. Keeping the floor clear of paint chips, dust, and dirt is easy and very important. Do not sweep or vacuum lead-based paint chips or dust with an ordinary vacuum cleaner. Lead dust is so fine it will pass through a vacuum cleaner bag and spread into the air you breathe.
- o Make sure your children wash their hands frequently and always before eating.
- o Wash toys, teething rings, and pacifiers frequently.

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RD Instruction 1924-A  
Exhibit H  
Attachment 2

For all existing housing or buildings constructed before 1978, Rural Development requires that the applicant, borrower, or tenant be notified of a potential lead-based paint hazard by delivering to them a copy of the caution note provided below.

-----  
CAUTION NOTE ON LEAD-BASED PAINT HAZARD

THIS HOUSE WAS CONSTRUCTED BEFORE 1978.

There is a possibility that it may contain some lead-based paint that was in use before 1978.

SEE "WARNING - LEAD-BASED PAINT HAZARDS"  
Attachment 1 to Exhibit H of RD Instruction 1924-A,  
for more information.

-----  
CAUTION NOTE ON LEAD-BASED PAINT HAZARD

THIS HOUSE WAS CONSTRUCTED BEFORE 1978.

There is a possibility that it may contain some lead-based paint that was in use before 1978.

SEE "WARNING - LEAD-BASED PAINT HAZARDS"  
Attachment 1 to Exhibit H of RD Instruction 1924-A,  
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SEE "WARNING - LEAD-BASED PAINT HAZARDS"  
Attachment 1 to Exhibit H of RD Instruction 1924-A,  
for more information.

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(Cut along lines)

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GUIDELINES FOR SEASONAL FARM LABOR HOUSING

SECTION 100

GENERAL - This Exhibit sets forth the guidelines and minimum standards for planning and construction of new Labor Housing (LH) that will be occupied on a seasonal basis. Rehabilitation LH projects will be in substantial conformance with these guidelines and standards. A "seasonal basis" is defined as 6 months or less per year. Seasonal housing for the farmworker need not be convertible to year-round occupancy; however, the living units shall be designed for the intended type of tenant, the time of occupancy, the location, the specific site, and the planned method of operation. It is important that the design of the LH site and buildings will help to create a pleasing lifestyle which will promote human dignity and pride among its tenants.

SECTION 200

CODES AND REGULATIONS - Compliance is required with National, state and local codes or regulators affecting design, construction, mechanical, electrical, fire prevention, sanitation, and site improvement.

SECTION 300

PLANNING

- 300-1 Complete architectural/engineering services in accordance with this subpart will be required if an LH grant is involved or the LH loan will involve more than four individual family units, or any number of group living units, or dormitory units accommodating 20 or more persons.
- 300-2 Building and site design shall provide for a safe, secure, economical, healthful, and attractive living facility and environment suited to the needs of the domestic farm laborer and his/her family.
- 300-3 At least 5 percent of the individual family units in a project, or one unit, whichever is greater, and all common use facilities will be accessible to or adaptable for physically handicapped persons. This requirement may be modified if a recipient/borrower shows, through a market survey acceptable to Rural Development, that a different percentage of accessible or adaptable units is more appropriate for a particular project and its service area.

SITE DESIGN

- 301-1 General - The site design shall be arranged to utilize and preserve the favorable features and characteristics of the property and to avoid or minimize the potential harmful effect of unfavorable features. Particular attention is directed to §1944.164 (l), (m), and (n) of Subpart D of Part 1944 of this chapter with reference to compliance with Subpart G of Part 1940 of this chapter. Some of the features which must be considered are the topography, drainage, access, building orientation to sun and breezes; and advantageous features, such as vegetation, trees, good views, etc.; or disadvantageous features, such as offensive odors, noxious plants, noise, dust, health hazards, etc. (Revised 08-20-93, SPECIAL PN.)
- 301-2 Drainage - Surface and subsurface drainage systems will be provided in accordance with the applicable development standard and Subpart C of Part 1924 of this chapter. (Revised 6-22-87, SPECIAL PN.)
- 301-3 Water and Sewage Disposal - Water supply and sewage disposal installations shall comply with Subpart C of Part 1924 of this chapter, the applicable development standard and all governing state and local department of health requirements. Where environmentally and economically feasible, the LH facility shall correct to public water and waste disposal system. (Revised 6-22-87, SPECIAL PN.)
- 301-4 Electrical - Adequate electrical service shall be provided for exterior and interior lighting and for the operation of equipment.
- 301-5 Vehicular Access and Parking
- 301-5.1 Safe and convenient all-weather roads shall be provided to connect the site and its improvement to the off-site public road.
- 301-5.2 All-weather drives and parking shall be provided for tenants, and for trucks and buses as needed within the site. Driveways, parking areas and walkway locations shall be in substantial conformance with the applicable development standard.

301-6 Walks

- 301-6.1 Walks shall be provided for safe convenient access to all dwellings and for safe pedestrian circulation throughout the development between locations and facilities where major need for pedestrian access can be anticipated, such as laundry, parking to dwelling units, common dining rooms, etc.

301-6.2 Walkways shall be hard surface, such as concrete, asphalt or stabilized travel, and shall be adequately drained.

301-7 Building location

301-7.1 Side and rear yards and distances between buildings shall conform to the applicable development standard.

301-8 Garbage and Refuse

301-8.1 Garbage and refuse containers for individual units are required and shall be stored on durable functional racks or shall be located in a central screened area with easily cleaned surfaces. Single containers for multiple units shall be screened and in locations designed to accommodate collection vehicle functions.

301-9 Fencing

301-9.1 Fencing used in the site design for project privacy or building security shall be harmonious in appearance with other fences and surrounding facilities which fall within the same view.

301-10 Outdoor living

301-10.1 All public areas where pedestrian use can be anticipated after sunset shall be adequately lighted for security purposes, such as walkways to common use facilities - laundry, dining halls, building entrances, parking areas, etc.

301-11 Planting and Landscaping

301-11.1 Planting and lawns or ground covers shall be provided as required to protect the site from erosion, control dust, for active and passive recreation areas, and provide a pleasant environment.

BUILDING DESIGN

302-1.1 Living Units Design

302-1.1 Individual Family Unit - One family or extended family to a unit which shall contain adequate space for living, dining, kitchen, bath and bedrooms. Multifamily type units are required whenever possible for economy of site and building construction.

a. The minimum total net living unit size shall be 400 square feet. This size assures occupancy of four persons. Units planned for additional occupants shall include an additional 60 square feet of living area per person.

b. A living/dining area shall be provided to accommodate a table and chairs with adequate dining and circulation space for the intended number of occupants. The living/dining area should be combined with the kitchen area.

c. The kitchen shall contain a sink, cooking range and refrigerator. A minimum free countertop area of six square feet is required. A minimum of 40 square feet of shelf area is required.

d. Each bathroom shall contain adequate space and circulation for a bathtub and/or shower, water closet and lavatory. Access to the bathroom shall not be through another bedroom in dwelling units containing more than one bedroom.

e. Bedroom areas separate from living areas are required. The design of the unit shall provide a minimum of 50 square feet of sleeping area per intended occupant including storage. Housing for families with children shall have a separate bedroom or sleeping area for the adult couples. A two foot by two foot shelf with a two foot long clothes hanging rod is required for each occupant.

302-1.2 Group Living Unit - A living unit designed for the occupancy of more than one family or for separate occupancy of male and/or female groups. Common bath spaces shall be contained in the same building. Group living units for families shall have separate bedrooms for each adult couple.

a. The design of the unit shall provide for a minimum of 620 square feet of total net living area for eight persons and an additional 60 square feet for each additional occupant.

Additional area shall be planned for a second bathroom when anticipated occupancy will exceed eight persons, or if it will be occupied by persons of both sexes.

b. The kitchen shall contain an adequate sink, cooking range, refrigerator, and space the size of which is commensurate with the needs of the group living unit. A minimum of free countertop area of eight square feet is required. A minimum of 50 square feet of shelf area is required.

c. Refer to paragraph 302-1.1 b for living/dining requirements.

d. Each bathroom shall contain adequate space and circulation for comfortable access to, and use of, fixtures which will include a bathtub and/or shower, water closet and lavatory. In no case shall minimum fixtures be less than that required per paragraph 302-1.3 c below.

e. Refer to paragraph 302-1.1 e for bedroom requirements.

302.1.3 Dormitory Living Unit - A building which provides common sleeping quarters for persons of the same sex and may or may not contain kitchen and/or dining facilities in the same building as the sleeping quarters.

a. The design of areas for sleeping purposes, using single beds, shall provide for not less than 72 square feet per occupant including storage.

b. The design of areas for sleeping purposes, using double bunk beds, shall provide for not less than 40 square feet per occupant. Triple bunk beds will not be allowed.

c. The design of each dormitory building must include a water closet and a bathtub or shower for each 12 occupants, and a lavatory for each 8 persons. Urinals may be substituted for men's water closets on the basis of one urinal for one water closet, up to maximum of one-third of the required water closets.

d. Adequate kitchen and dining facilities must be provided which maybe in the dormitory building or detached at a distance of not more than 200 feet from the sleeping quarters. In either case, the space must contain adequate cooking ranges, refrigerators, sinks, countertop, food storage shelves, tables and chairs, and circulation space. These facilities will comply with the requirements of the "Food Service Sanitation Ordinance and Code," Part V of the "Food Service Sanitation Manual," U.S. Public Health Service Publication 934 (1965).

## 302-2 Other Facilities

302-2.1 General - Other facilities, authorized by Subpart D of Part 1944 of this chapter, needed by farm workers may be provided in several ways: Part of a living unit, located in the project, or, with the exception of laundry facilities, available nearby.

302-2.2 Laundry Facilities - Laundry facilities shall be required on-site. Drying yards shall be provided if dryer units are not provided. The design of washing facilities shall plan for a minimum rate of one washer for each 20 occupants. One drying unit may be provided for every two washers, if automatic dryers are customarily provided for rental housing in the community. Laundry facilities shall have adequate space for loading the units, circulation, and clothes folding.

302-2.3 Office and Maintenance - An office and maintenance space shall be provided or available, commensurate with the number of living units served, and shall meet the criteria of the Rural Development Manual of Acceptable Practices. If necessary, the maintenance space shall have sufficient area to accommodate furniture storage.

302-2.4 Child Care Center - Where feasible, a child care center may be included to provide supervised activity and safety for children while the parents work. Supervisors and workers for such centers are sometimes enlisted on a volunteer basis and the cost borne by nonprofit associations or community organizations. Grants are sometimes available through Federal or state programs. Consequently, the design of the child care center should meet the requirements of those sources providing organizational personnel and/or financing.

302-2.5 Manager's Dwelling - If a manager's dwelling unit is to be provided as a part of the Rural Development loan or grant, it will meet these guidelines. However, if it is necessary to provide a year-round caretaker/manager dwelling unit with Rural Development loan or grant funds, it will meet the applicable development standard.

302-2.6 Recreation - Outdoor recreation space is required and shall be commensurate with the needs of the occupants. Active and passive recreation areas will be provided which may consist of outdoor sitting areas, playfields, tor lots and play equipment.

#### GENERAL REQUIREMENTS

303-1 Materials and Construction - All materials and their installation in a LH facility shall meet the applicable development standard. Any exceptions to these requirements for materials and their installation must be obtained with the approval of the Rural Development National Office. Material should be selected that is durable and easily cleaned and maintained.

303-2 Fire Protection - Fire protection and egress shall be provided to comply with the applicable development standard.

303-3 Light, Ventilation, Screening - Natural light and ventilation requirements as specified in the applicable development standard shall be followed. Screening of all exterior openings is required.

303-4 Ceiling Heights - Ceiling heights of habitable rooms shall be a minimum of seven feet six inches clear, and seven feet in halls or baths in dwelling units. Public rooms shall have a minimum of eight feet clear ceiling height. Sloping ceilings shall have at least seven feet six inches for 1/2 the room with no portion less than five feet in height.

303-5 Heating and Cooling - Heating and cooling and/or air circulation equipment shall be installed as needed for the comfort of the tenants, considering the climate and time of year the facility will be in operation. Maximum feasible use of passive solar heating and cooling techniques shall be required. All equipment installed will be in accordance with the applicable development standard to protect the health and safety of occupants.

303-6 Plumbing - Plumbing materials and their installation shall meet the applicable development standard, but water will be required to all living units, baths, kitchens and laundry facilities.

303-7 Insulation, Thermal Standards, Winterization - Insulation will be required where either heating or cooling is provided as per paragraph 303-5 above or when climatic conditions dictate a need for insulation. Insulation Standards will comply with Exhibit D, paragraph IV C 3, of this subpart, or the state insulation standards, whichever are the more stringent.

303-8 Electrical - Electrical design, equipment and installation shall comply with the requirements of the latest edition of the National Electrical Code, and the applicable development standard for materials and their installation. Individual family units may be separately metered; other types of dwelling units may be separately metered as required.

303-9 Security and Winterization - Adequate management and physical measures will be provided as necessary to protect the facility during off-season periods, including adequate heating and insulation as required.

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MANUFACTURED HOME SITES, RENTAL PROJECTS AND SUBDIVISIONS:  
DEVELOPMENT, INSTALLATION AND SET-UP

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MANUFACTURED HOME SITES, RENTAL PROJECTS AND SUBDIVISIONS:  
DEVELOPMENT, INSTALLATION AND SET-UP

PART A - INTRODUCTION

I. Purpose and Scope. This Exhibit describes and identifies acceptable site development, installation and set-up practices and concepts for manufactured homes. It is intended for Rural Development field personnel, builders, developers, sponsors, and others participating in Rural Development housing programs.

This Exhibit applies to all manufactured homes (except those referenced in Exhibit B of this subpart) on scattered sites or in rental projects and subdivisions and covers the requirements for design and construction of manufactured home communities. Rural Development may approve alternatives or substitutes if it finds the proposed design satisfactory for the proposed use, and if the materials, installation, device, arrangement, or method of work is at least equivalent to that prescribed in this Exhibit considering quality, strength, effectiveness, durability, safety and protection of life and health.

Rural Development will require satisfactory evidence to be submitted to substantiate claims made regarding the use of any proposed alternative.

II. Background. Rural Development has authority to make (1) Section 502 Rural Housing (RH) loans with respect to manufactured homes and lots, and (2) Section 515 Rural Rental Housing (RRH) loans with respect to manufactured home rental projects.

The manufactured home must be constructed in conformance with the Federal Manufactured Home Construction and Safety Standard (FMHCSS) and be permanently attached to a site-built permanent foundation which meets or exceeds the Minimum Property Standards (MPS) for One- and Two-Family Dwellings or Model Building Codes acceptable to Rural Development. The manufactured home must be permanently attached to that foundation by anchoring devices adequate to resist all loads identified in the MPS. This includes resistance to ground movements, seismic shaking, potential shearing, overturning and uplift loads caused by wind. Note that anchoring straps or cables affixed to ground anchors other than footings will not meet these requirements.

Subpart G of Part 1940 of this chapter applies on scattered sites, in subdivisions and rental projects to the development, installation and set-up of manufactured homes. To determine the level of environmental analysis required for a particular application, each manufactured home or lot involved shall be considered as equivalent to one housing unit or lot as these terms are used in §§1940.310-.312 as well as in any other sections of Subpart G of Part 1940 of this chapter. The implementation of Rural Development environmental policies and the consideration of important land use impacts are of particular relevance in the review of proposed manufactured home sites and in achieving

the two purposes highlighted below. Because the development, installation and set-up of manufactured home communities, including scattered sites, rental projects, and subdivisions, differ in some requirements from conventional site and subdivision development, two of the purposes of this Exhibit are to:

- A. Encourage economical and orderly development of such communities and nearby areas, and
- B. Promote the safety and health of residents of such communities.

Therefore, this Exhibit identifies those required standards and regulations and suggested guidelines for eliminating and preventing health and safety hazards and promoting the economical and orderly development and utilization of land for planning and development of manufactured home communities. The Exhibit also provides the requirements for meeting the following:

- A. Resistance to Wind. Foundations and anchorages shall be designed to resist wind forces specified in American National Standards Institute (ANSI) A-58.1-1982 for the geographic area in which the manufactured home will be sited;
- B. Proper Installation. The manufacturer's installation instructions provided with each manufactured home shall contain instructions for at least one site-built foundation with interior and/or perimeter supports. Rural Development field office personnel shall review to determine its adequacy as security for an Rural Development loan only, the foundation design concept for compliance with this Exhibit, the Rural Development/MPS and any Model Building Code acceptable to Rural Development in that particular geographic area; and
- C. Proper Foundation Design. Manufactured homes shall be installed on a foundation system which is designed and constructed to sustain, within allowable stress and settlement limitations, all applicable loads. Any foundation and anchorage system or method of construction to be used should be analyzed in accordance with well-established principles of mechanics and structural engineering.

III. Definitions. For the purpose of this Exhibit the following definitions apply:

Accessory Building or Structure. A subordinate building or structure which is an addition to or supplements the facilities provided by a manufactured home.

Anchoring Systems. An approved system for securing the manufactured home to the ground or foundation system that will, when properly designed and installed, resist overturning and lateral movement of the home from wind forces.

Contiguous. Sharing a boundary, adjoining or adjacent. A lot or subdivision is considered to be contiguous to other lots or subdivisions if it is adjoining, touching or adjacent.

Federal Manufactured Home Construction and Safety Standards (FMHLSS). A 1976 federal standard, commonly known as the HUD Standard, for the construction, design and performance of a manufactured home which meets the needs of the public including the need for quality, durability and safety. Units conforming to the FMHCSS are certified by an affixed label that reads as follows:

AS EVIDENCED BY THIS LABEL NO. \_\_\_\_\_  
THE MANUFACTURER CERTIFIES TO THE BEST OF THE  
MANUFACTURER'S KNOWLEDGE AND BELIEF THAT THIS  
MANUFACTURED HOME HAS BEEN INSPECTED IN  
ACCORDANCE WITH THE REQUIREMENTS OF THE  
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT AND  
IS CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL  
MANUFACTURED HOME CONSTRUCTION AND SAFETY  
STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE.  
SEE DATA PLATE.

Manufactured Home. A structure which is built to the Federal Manufactured Home Construction and Safety Standards and Rural Development's thermal requirements. It is transportable in one or more sections, which in the traveling mode is ten body feet or more in width, and when erected on site is four hundred or more square feet, and which is built on a permanent foundation when connected to the required utilities. It is designed and constructed for permanent occupancy by a single family and contains permanent eating, cooking, sleeping and sanitary facilities. The plumbing, heating, and electrical systems are contained in the structure.

Manufactured Home Community. A parcel or contiguous parcels of land which contains two or more manufactured home sites available to the general public for occupancy. Sites and units may be for rent, or sites may be sold for residential occupancy (as in a subdivision).

Manufactured Home Rental Project. A parcel or multiple parcels of land which have been so designated and improved to contain manufactured homes with sites available for rent.

Manufactured Home Site. A designated parcel of land in a manufactured home rental project, subdivision or scattered site designed for the accommodation of a unit and its accessory structures for the exclusive use of the occupant.

Manufactured Home Subdivisions. Five or more contiguous (developed or undeveloped) lots, or building sites that meet the requirements of Subpart C of Part 1924 of this chapter. (Revised 6-22-87, SPECIAL PN.)

Permanent Perimeter Enclosure. A permanent perimeter structural system completely enclosing the space between the floor joist of the manufactured home and the ground. If separate from the foundation system, the permanent perimeter enclosure shall be secured to the perimeter of the manufactured home, properly ventilated and accessible and constructed of materials that conform to the Rural Development adopted MPS requirements for foundations.

Pier Support System. Consists of footings, piers, caps, leveling spacers, or approved prefabricated load bearing devices.

Related Facilities. Any nonresidential structure or building used for rental housing related purposes as defined in §1944.205 of Subpart t of Part 1944 of this chapter. (Revised 2-25-88, SPECIAL PN)

Site-Built Permanent Foundation System. A foundation system (consisting of a combination of footings, piers, caps and shims and anchoring devices or required structural connections) which is designed and constructed to support the unit and sustain, within allowable stress and settlement limitations, all applicable loads specified in ANSI A58.1-1982. All loads shall be transferred from the manufactured home to the earth at a depth below the established frost line without exceeding the safe bearing capacity of the supporting soil.

Set-up. The work performed and operations involved in the placement of a manufactured home on a foundation system, to include installation of accessories or appurtenances and anchoring devices, and when local regulations permit, connection of utilities, but excluding preparation of the site.

IV. Compliance with Local Regulations. These requirements do not replace site development standards established by local law, ordinances, or regulations. Whenever such local standards contain more stringent provisions than any of the site development, installation and set-up minimums of Rural Development, the more stringent standards shall govern.

V. Applicable Standards, Regulations and Manuals.

A. Manufactured housing to be financed by Rural Development must comply with the following standards:

1. Federal Manufactured Home Construction and Safety Standards, 24 CFR Part 3280, mandated by Congress under Title VI of the Federal Housing and Community Development Act of 1974, except for §3280.506, "Heat Loss," of Subpart F, "Thermal Protection," to Part 3280.

2. Foundation requirements of the Minimum Property Standards as adopted by Rural Development or a Model Building Code acceptable to Rural Development.

3. [Reserved]

4. Uniform Federal Accessibility Standard (UFAS).

5. ANSI A58.1-1982, Minimum Design Loads for Buildings and Other Structures.

B. Manufactured housing to be financed by the Agency shall comply with all applicable RD regulations, including but not limited to the following:

1. Subpart C of part 1924 of this chapter "Planning and Performing Site Development Work." (Revised 6-22-87, SPECIAL PN.)

2. Subpart A of Part 1924, Exhibit D, Thermal Performance Construction Standards.

3. Subpart G of Part 1940, "Environmental Program."

4. 7 CFR part 3550, "Direct Single Family Housing Loans and Grants." (Revised 01-23-03, SPECIAL PN.)

5. Subpart E of Part 1944, "Rural Rental Housing Loan Policies, Procedures, and Authorizations."

The requirements of the above references have not been repeated in this Exhibit. Those requirements contained above are either mandatory or minimums and every effort should be made by the applicant, builder-developer or dealer-contractor to utilize higher standards, when appropriate.

#### PART B - CONSTRUCTION AND LAND DEVELOPMENT

I. General Acceptability Criteria. The following criteria apply to development on scattered sites, in subdivisions and in rental project communities.

A. A manufactured home development including a site, rental project or subdivision shall be located on property designated for that use, where designations exist, by the local jurisdiction.

B. Conditions of soil, ground water level, drainage, flooding and topography shall not create hazards to the property and health or safety of the residents.

C. The finished grade elevation beneath the manufactured home or the first floor elevation of the habitable space, whichever is lower, shall be above the 100-year return frequency flood elevation. This requirement applies wherever manufactured homes may be installed, not just in locations designated by the National Flood Insurance Program as areas of special flood hazards. The use of fill to accomplish this is a last resort. However, as stated in § 1940.304 of subpart G of Part 1940 of this chapter, it is the Agency's Policy not to approve or fund any proposal in a 100-year floodplain area unless there is no practicable alternative to such a floodplain location.

D. Essential service such as employment centers, shopping, schools, recreation areas, police and fire Protection, and garbage and trash removal shall be convenient to the development and any site, community, or subdivision must meet the environmental and location requirements contained in Subpart G of Part 1940 of this chapter.

E. Manufactured home sites, rental projects and subdivisions shall not be subject to any adverse influences of adjacent land uses. An adverse influence is considered as one that is out of the acceptable level or range of a recognizable standard or where no standard exists is considered a nuisance irrespective of a site being zoned for manufactured home use. Health, safety and aesthetic consequences of location shall be carefully assessed by inspection of the site prior to selection for development. Undesirable land uses such as deteriorated residential or commercial areas and noxious industrial properties shall be avoided to ensure compatibility. Other undesirable elements such as heavily traveled highways, airport runways, railroads, or fire hazards and other areas subject to recognizably intolerable noise levels shall be avoided.

F. The requirements for streets shall be those found in subpart C of Part 1924 of this chapter. (Revised 6-22-87, SPECIAL PN.)

G. The site design and development shall be in accordance with sound engineering and architectural practices and shall provide for all utilities in a manner which allows adequate, economic, safe, energy efficient and dependable systems with sufficient easements for their required installation and maintenance.

H. Utilities for each manufactured home site, rental housing project or subdivision shall be designed and installed in accordance with subpart C of Part 1924 of this chapter; and the State health authority having jurisdiction, and all local laws and regulations requiring approval prior to construction. (Revised 6-22-87, SPECIAL PN.)

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(Added 01-23-03, SPECIAL PN)

I. Exhibit C, Section V of this Subpart shall be complied with by the applicant, dealer-contractor or builder-developer for manufactured home projects with individual water supply and sewage disposal systems. This Exhibit shall be used by the Rural Development, County Supervisors, District Directors, and State Directors in reviewing submissions.

J. During the planning, design, and construction of the foundation system and/or perimeter enclosure, provisions shall be made for the installation and connection of on-site water, gas, electrical and sewer systems, which are necessary for the normal operation of the manufactured home. Water and sewer system hookups shall be adequately protected from freezing.

II. Development on Scattered Sites and in Subdivisions.

A. General. Scattered sites and subdivision developments will be planned and constructed in accordance with specific requirements of this subpart, Subpart C of Part 1924 and Subpart G of Part 1940 of this chapter, and the applicable Rural Development/MPS or Model Building Codes acceptable to Rural Development. Manufactured homes for development in a manufactured home community shall: (Revised 6-22-87, SPECIAL PN.)

1. Be erected with or without a basement on a site-built permanent foundation that meets or exceeds applicable requirements of the Rural Development/MPS for One- and Two-Family Dwellings or Model Building Codes acceptable to Rural Development;
2. Be permanently attached to that foundation by anchoring devices adequate to resist all loads identified in the Rural Development adopted MPS (this includes resistance to ground movements, seismic shaking, potential shearing, overturning and uplift loads caused by wind, etc.);
3. Have had the towing hitch or running gear, which includes tongues, axles, brakes, wheels, lights and other parts of the chassis that operate only during transportation removed;
4. Have any crawl space beneath the manufactured home properly ventilated and enclosed by a continuous permanent perimeter enclosure. If it is not the supporting foundation, designed to resist all forces to which it may be subject without transmitting to the building superstructure movements or any effects caused by frost heave, soil settlement (consolidation), or shrinking or swelling of expansive soils; and be constructed of materials that conform to Rural Development adopted MPS requirements for foundations;
5. Have the manufactured home insulated to meet the energy conserving requirements contained in Exhibit D of this subpart;
6. Have a manufactured home site, site improvements, and all other features of the mortgaged property not addressed by the Federal Manufactured Home Construction and Safety Standards, meet or exceed applicable requirements of this Subpart and Part 1924, Subpart C of this chapter, the Rural Development adopted MPS except paragraph 311-2.2 or a Model Building Code acceptable to Rural Development; (Revised 6-22-87, SPECIAL PN.)
7. Have had the manufactured unit itself braced and stiffened where necessary before it leaves the factory to eliminate racking and potential damage during transportation; and
8. Be eligible for financing in accordance with the requirements of either Section 502, or Section 515 of Rural Development's Housing Program, for which purpose the beginning of construction will be the commencement of on-site work even though the manufactured home itself may have been produced and temporarily stored prior to the date of application for financing.

B. Site Planning and Development. The site planning and development of manufactured home scattered sites and subdivisions shall also comply with the following:

1. Arrangement of Structures and Facilities. The site, including the manufactured home, accessory structures, and all site improvements shall be harmoniously and efficiently organized in relation to topography, the shape of the plot, and the shape, size and position of the unit. Particular attention shall be paid to use, appearance and livability.
2. Adaptation to Site Assets. The manufactured home shall be fitted to the terrain with a minimum disturbance of the land. Existing trees, rock formations, and other natural site features shall be preserved to the extent practical. Favorable views or outlooks shall be emphasized by the plan.
3. Site Plan. The site plan shall provide for a desirable residential environment which is an asset to the community in which it is located.
4. Lot Size. The size of manufactured home lots (scattered sites and subdivisions) shall be determined by 7 CFR part 3550 and subpart C of Part 1924 of this chapter. (Revised 01-23-03, SPECIAL PN.)

C. Foundation Systems, Anchoring and Set-up.

1. The foundation system shall be constructed in accordance with this subpart and one of the following: (a) the foundation system included in the manufacturer's installation instructions meeting Rural Development/MPS requirements, (b) the Rural Development/MPS 4900.1, which specifies performance requirements for foundations in Section 600 "General" and paragraph 601-16 "Foundations," or (c) an Agency recognized model building code.
2. The manufactured home permanent foundation system shall constitute a permanent load bearing support system for the manufactured home. The manufacturer or applicant shall be permitted to design or specify the installation of a foundation system which meets Rural Development/MPS design requirements for foundations and the general requirements above.
3. The applicant's responsibility for proper design and installation of the permanent foundation system, anchoring and set-up shall be in accordance with § 1924.5(f)(1) of this subpart.
4. The builder/developer of the manufactured home property, for proposed construction, shall submit with the application

for financing by the applicant or for a conditional commitment design calculations, details and drawings for the installation, anchorage and construction of permanent foundation and perimeter enclosure to be used.

III. Rental Housing Project Development.

A. General. Manufactured housing rental developments shall be planned and constructed in accordance with requirements of Subpart C of Part 1924; this subpart; Subpart G of Part 1940; the Rural Development/MPS; and the requirements of Subpart E of Part 1944 of this chapter.  
(Revised 6-22-87, SPECIAL PN.)

B. Site Planning and Development. Site planning and development shall adapt to individual site conditions and the type of market to be served, reflect advances in site planning and development techniques, and be adaptable to the trends in design of the manufactured home. Site planning and development shall utilize existing terrain, trees, shrubs and rock formations to the extent practicable. A regimental style site plan design should be avoided.

C. Foundation Systems, Anchoring and Set-up. Foundation systems, anchoring and set-ups for manufactured home rental projects (site and home) developed under Rural Development Section 515 Rural Rental Housing program shall comply with the requirements of paragraph II A and II C above.

IV. Accessory Structures and Related Facilities.

A. General. Accessory structures and related facilities are dependent upon the manufactured home and its environment.

1. Accessory structures and related facilities shall be planned, designed and constructed in accordance with the applicable provisions of this subpart; the Rural Development/MPS; and local criteria of the authority having jurisdiction.
2. Accessory structures and related facilities shall be designed in a manner that will eliminate and prevent health and safety hazards and enhance the appearance of the manufactured home and its environment.
3. Accessory structures and related facilities shall not obstruct required openings for light and ventilation of the manufactured home and shall not hamper installation and utility connection of the unit.

B. Accessory Structures.

1. Accessory structures shall not include spaces for pantries, bath, toilets, laundries, closets or utility rooms.

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2. Accessory structures shall be carefully designed and constructed for the convenience and comfort of the manufactured home occupant. These features significantly affect the visual appearance of the community and influence livability.

C. Related Facilities (Rental Housing Projects).

1. This includes those facilities as defined in Sections 1944.205 and 1944.212 (e) of Subpart E of Part 1944 of this chapter.

(Revised 2-25-88, SPECIAL PN)

2. Related facilities built on-site must meet the Rural Development/MPS and Subpart A of Part 1924 of this chapter or other building codes approved by Rural Development.

3. Workmanship shall be of a quality equal to good standard practice. Material shall be of such kind and quality as to assure reasonable durability and economy of maintenance, all commensurate with the class of building under consideration.

4. All members and parts of the construction shall be properly designed to carry all loads imposed without detrimental effect on finish or covering materials.

5. The structure shall be adequately braced against lateral stresses and each member shall be correctly fitted and connected.

6. Adequate precautions shall be taken to protect against fire and accidents.

7. All related facilities which require accessibility to the handicapped must comply with the Uniform Federal Accessibility Standard (UFAS).

V. Fire Protection and Safety.

A. The design of the site plan for each manufactured community - and scattered site shall meet the fire protection and safety requirements of the local authority responsible for providing the necessary fire protection services.

B. All fire detection and alarm systems, and water supply requirements for fire protection for manufactured communities shall be in accordance with the local authority responsible for providing the necessary fire protection services.

C. Any portion of a manufactured home shall not be closer than the local separation requirements of the development standard for side to side, end to end, and end to side siting. If the exposed composite wall and roof of two or more manufactured homes are proposed to be joined they shall be without openings and constructed of materials which will

provide a minimum one-hour fire rating each, or the manufactured homes are separated by a one-hour fire rated barrier designed and approved for such installation and permitted by the authority having jurisdiction.

D. Manufactured homes shall not be positioned vertically (stacked) with one over the other in whole or in part without the specific approval of the authority having jurisdiction.

PART C - DRAWINGS, SPECIFICATIONS, CONTRACT DOCUMENTS AND OTHER DOCUMENTATION

I. General. Adequate site development and foundation installation drawings and specifications shall be provided by the applicant or dealer-contractor to the Agency to fully describe the construction and other development work. These documents shall be provided according to the requirements of § 1924.5(f)(1) of this subpart. Contract documents will be prepared in accordance with § 1924.6 and, in the case of multiple family housing construction and development, § 1924.13 of this subpart.

A. The documents recommended shall be used as a guide for drawings and specifications to be submitted in support of all types of loan and/or grant applications involving manufactured homes. Adequate and accurate drawings and specifications are necessary to:

1. Determine the acceptability of the physical environment and improvements,
2. Determine compliance with the applicable standards and codes,
3. Review cost estimates, and
4. Provide a basis for financing, inspections, and the warranty.

B. Detailed floor plans, drawings and are not required for any manufactured home to be installed on a scattered site, in a subdivision or rental housing project. However, a schematic floor plan should be submitted by the applicant when applying for Agency financing. The unit must have an affixed label as specified in paragraph XIV (c) (3) of Exhibit F of subpart A of Part 1944 indicating that the unit is constructed to the HUD Title II thermal standards for the appropriate winter degree days. This will indicate that the manufacturer certifies that the unit has been properly inspected and it meets the Agency Thermal Performance Construction Standard. (Revised 01-23-03, SPECIAL PN.)

C. For proposed construction, the builder or dealer-contractor shall submit with the loan or grant application design calculations, details and drawings for the installation, anchorage and construction of the permanent foundations and perimeter enclosure to be used. Drawings and specifications for foundation systems will be reviewed and examined by either the Agency County Supervisor, District Director, or State Architect/Engineer for foundation support locations, loads and connection requirements specified by the manufacturer as a basis for evaluating foundation compliance with the Rural Development/MPS or Model Building Code, and for determining design suitability for soil conditions. Drawings and specifications will also be examined by Rural Development to determine compliance with all other on-site features not covered by the FMHCSS.

D. Foundation design sections and details of all critical construction points systems, anchorage methods, and structural items shall be scaled as necessary to provide all appropriate information 1:30 (3/8" = 1'-0") minimum.

II. Scattered Sites. Drawings for single family manufactured housing shall be submitted by the applicant in addition to the requirements of paragraph I above and the requirements of paragraphs II A and D-7 of Exhibit C of this subpart.

III. Subdivisions. Subpart C of Part 1924 of this chapter will be used in preparing and providing supporting documents. (Revised 6-22-87, SPECIAL PN.)

IV. Rental Housing Projects. Subpart C of Part 1924 of this chapter will be used in preparing and providing supporting documents. (Revised 6-22-87, SPECIAL PN.)

V. Specifications.

A. Form Rural Development/1924-2, "Description of Materials," or other acceptable and comparable descriptions of all materials used for site development, foundation installation and the permanent perimeter enclosure shall be submitted with the drawings by the applicant.

B. The material identification information shall be in sufficient detail to fully describe the material, size and grade. Where necessary, additional sheets shall be attached as well as manufacturer's specification sheets for equipment and/or special materials.

PART D - INSPECTION OF DEVELOPMENT WORK

I. General. The following policies will govern the inspection of all manufactured housing development work. This includes scattered sites, subdivisions, rental housing projects and all accessory structures and related facilities unless otherwise indicated.

II. Inspections.

A. The responsibility for frequency and purpose of inspections shall be in accordance with § 1924.9(b)(1), (2) and (3) of this subpart. The inspection requirements of § 1924.13 apply to the planning and conduct of construction work on all 515 housing developments that are more extensive in scope and more complex in nature than those involving an individual manufactured housing unit. The Stage 2 inspection customary for site-built housing when the building is enclosed is not required for manufactured homes.

The Stage 2 inspection for manufactured homes will be made within two working days after erection or placement on the foundation to determine compliance with accepted installation drawings and specifications for installation and set-up and to verify that the correct unit is on the site.

Stage 2 and 3 inspections for manufactured homes may be combined when authorized by the State Director.

B. The borrower will join the County Supervisor or the District Director in making periodic inspections as often as possible and always for the final inspection.

C. The borrower should be encouraged to make enough periodic visits to the site to be familiar with the progress and performance of the work in order to protect the borrower's interest. If the borrower observes or otherwise becomes aware of any fault or defect in the work or nonconformance with the contract documents, the borrower should give prompt written notice thereof to the dealer-contractor and a copy of the notice to the appropriate County Supervisor or District Director.

D. During inspection, it will generally be infeasible to determine whether a manufactured unit erected on a site was properly braced and stiffened during transportation. Inspectors should examine these units

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to determine that there is no obvious damage or loosening of fastenings that may have occurred during transportation. The dealer-contractor must warrant these units against such damage, which should protect the Agency's interest.

III. Warranty Plan Coverage. The warranty requirements for all development work shall be in accordance with § 1924.9(d) of this subpart and 7 CFR part 3550, subpart B. (Revised 01-23-03, SPECIAL PN.)

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## CLASSIFICATIONS FOR MULTI-FAMILY RESIDENTIAL REHABILITATION WORK

### I. GENERAL

This Exhibit distinguishes between what Rural Development considers maintenance and repair work, moderate rehabilitation and substantial rehabilitation. In all cases, the building or project to be rehabilitated shall be structurally sound. The applicant shall have a structural analysis of the existing building made to determine the adequacy of all structural systems for the proposed rehabilitation.

### II. DEFINITIONS

Maintenance and Repair - Work involved in the selective replacement and general maintenance and repair of certain materials, appliances or components of an existing residential building.

Moderate Rehabilitation - All work directly involved in the rearrangement of interior space, the replacement of finish materials or components of the electrical, plumbing, heating or conveyance system of an existing multi-family residential building. Work and improvements are considered to be more than routine maintenance and repair.

Substantial Rehabilitation - All work directly involved in the rearrangement of interior space that involves alteration of load bearing partitions and columns; the replacement of the electrical, plumbing, heating or conveyance systems; and the addition to and/or major conversion of existing multi-family residential buildings or other building structures.

Moderate rehabilitation and repair shall not be limited to building changes for cosmetic or convenience purposes. In all cases moderate rehabilitation shall involve a minimum of three (3) components of building rehabilitation listed as moderate. Unless combined with other improvements in a project that are considered to be moderate or substantial rehabilitation the items identified as maintenance and repair are considered to be cosmetic and convenience changes.

When a rehabilitation project consists of both moderate and substantial rehabilitation components, those substantial rehabilitation components shall be in accordance with Rural Development's development standards and local codes and regulation requirements. Where the majority of project components of building rehabilitation are considered substantial the project shall be considered in the substantial rehabilitation category.

Those site components of rehabilitation such as landscaping, grading, drainage, fencing, parking areas, recreation areas, water and waste disposal systems, etc., whether considered either maintenance and repair, moderate rehabilitation or substantial rehabilitation shall be in accordance with Rural Development's development standards for site development work; all local codes and regulation requirements; and sound engineering and architectural practices.

Any alteration of a structure listed or eligible for listing on the National Register of Historic Places may be considered either moderate or substantial rehabilitation; however, it shall conform first to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings and then to Rural Development's requirements. In cases where the Secretary of the Interior's standards cannot be met, rehabilitation will conform to the agreed upon approaches, treatments and techniques resulting from the consultation process between Rural Development, the borrower, the State Historic Preservation Officer and the Advisory Council of Historic Preservation.

### III. COMPONENTS OF MULTI-FAMILY BUILDING REHABILITATION

The components of multi-family building rehabilitation necessary and generally considered by Rural Development to be either maintenance and repair, moderate rehabilitation or substantial rehabilitation include but are not limited to those listed in the following chart.

COMPONENTS OF MULTI-FAMILY BUILDING REHABILITATION

COMPONENTS	Maintenance and Repair	Moderate Rehab.	Substantial Rehab.
Air conditioning	o		
Appliance replacement or repair	o		
Cabinet replacement or repair	o		
Carpeting	o		
Caulking	o		
Ceiling framing	o		
Clothes closets or shelving improvements	o		
Door repair	o		
Drywall repair	o		
Gutters and downspouts	o		
Hardware replacement or repair	o		
Kitchen cabinet improvement	o		
Lighting fixture replacement or repair	o		
Mail boxes	o		
Painting	o		
Paneling	o		
Partition repair	o		
Roof repair	o		
Signage	o		
Stair repair	o		
Tile work	o		
Wallpapering	o		
Window shades and curtains	o		

COMPONENTS OF MULTI-FAMILY BUILDING REHABILITATION

COMPONENTS	Maintenance and Repair	Moderate Rehab.	Substantial Rehab.
Door replacement		o	
Drywall replacement		o	
Elevator components replacement		o	
Exterior entrance redesign, relocation		o	
Finish flooring materials		o	
Flashing		o	
Furnace replacement		o	
Gas pipes		o	
Insulation		o	
Lath and plaster replacement		o	
New shingles or roof replacement		o	
Partition (on bearing) replacement, or relocation		o	
Plumbing fixture replacement		o	
Pointing		o	
Porch and steps alteration or Replacement		o	
Stair replacement, or relocation		o	
Storm windows and weatherstripping		o	
Subfloor material replacement		o	
Trim - exterior and interior		o	
Window replacement		o	

COMPONENTS OF MULTI-FAMILY BUILDING REHABILITATION

COMPONENTS	Maintenance and Repair	Moderate Rehab.	Substantial Rehab.
- New or alteration to the:			
Mehchanical system			o
Soil pipes			o
Vent pipes			o
Waste pipes			o
- Alteration or replacement of structural components -			
Beams			o
Chimneys and vents			o
Columns and post			o
Electrical service - replacement or new			o
Elevator replacement			o
Exterior walls			o
Floor construction			o
Footing			o
Foundation wall			o
Foundation waterproofing			o
Interior walls			o

Moderate repair and rehabilitation shall not be limited to building changes for cosmetic purposes. In all cases moderate rehabilitation shall involve a minimum of three (3) components of building rehabilitation listed as moderate. Unless combined with other improvements in a project that are considered to be moderate or substantial rehabilitation the items identified as maintenance and repair are considered to be cosmetic and convenient changes.

#### INSURED 10-YEAR HOME WARRANTY PLAN REQUIREMENTS

I. Purpose: In recent years, numerous third-party home warranty plans have been developed offering new homeowners varying degrees of protection against builder default and/or major structural defects in their homes. This exhibit establishes the criteria and procedures by which a warranty plan is found acceptable for new construction of single family homes financed by Rural Development. An acceptable warranty plan will:

- A. Assure that Rural Development borrowers receive adequate warranty coverage,
- B. In certain circumstances, eliminate the requirement for Rural Development personnel to make the first two construction inspections, and
- C. Permit a loan up to the market value of the security (less the unpaid principal balance and past due interest of any other liens against the security), even though Rural Development personnel may not have performed periodic inspections during construction.

#### II. Types of Warranty Companies.

- A. An insured warranty company is underwritten by an insurance carrier, licensed to operate as an insurer by the states where the warranty company plans to operate, and has an acceptable rating from a nationally recognized rating company such as A. M. Best Company.
- B. A risk retention group is an insurer which is licensed in one state and is authorized, under the Products Liability Risk Retention Act of 1981, to issue its policies in all states. This authority is not challenged by Rural Development; however, there remains some question as to the legal propriety of a 10-year insured warranty insurer to be a risk-retention group. If at some future time any state insurance commission or regulatory agency challenges the legal authority of such group, Rural Development will reconsider its acceptance of the group.
- C. Individual state warranty plans, such as that offered by the State of New Jersey, are backed by the full faith and credit of the state government.

#### III. Plan Requirements

To be considered acceptable, a warranty plan must include the following features:

- A. The entire cost (fee, premium, etc.) of the coverage is prepaid and coverage automatically transfers to subsequent owners without additional cost.
- B. The coverage is not cancellable by the warrantor (builder), warranty company or insurer.

C. The coverage includes at least the following:

- (1) For one year from the effective date, any defects caused by faulty workmanship or defective materials.
- (2) During the second year after the effective date, the warranty continues to cover the wiring, piping and duct work of the electrical, plumbing, heating and cooling systems, plus the items in (3).
- (3) During the third through the tenth years, the warranty continues to cover minor structural defects. A minor structural defect is actual damage to the load-bearing portion of the home including damage due to subsidence, expansion or lateral movement of the soil (excluding movement caused by flood or earthquake) which affects its load-bearing function and which vitally affects or is imminently likely to affect use of the home for residential purposes.

D. A system is provided for complaint (claims) handling which includes a conciliation and, if necessary to resolve matters in dispute, arbitration arranged by the American Arbitration Association or similar organization.

E. A construction inspection plan is required if Rural Development is to eliminate the first two Rural Development inspections or permit a full market value loan when Rural Development inspections are not conducted.

#### IV. Information for Review.

A. Companies submitting warranty plans for a determination of acceptability must support requests with the following information.

- (1) Evidence that the insured warranty company has met the applicable state licensing and/or regulatory requirements in the state in which the company plans to operate.
- (2) Evidence that the insurance carrier underwriting the warranty plan is licensed to operate as an insurer in the states in which the company plans to operate and has an acceptable rating from a nationally recognized rating company such as A. M. Best Company.
- (3) State warranty plan agencies will provide evidence that the plan is backed by the full faith and credit of the state.

(4) A full description of the warranty plan including information on the fees, builder and home registration procedures, required construction standards, construction inspection procedures, coverage provided and claims procedures.

(5) A sample copy of the warranty information and/or policy which is provided to the homeowner.

(6) Suggested means by which Rural Development field offices can readily assure that the builder is a member in good standing prior to loan approval and that a warranty will be issued upon the completion of construction prior to the final release of funds.

B. Submission and Acceptance.

(1) Insured warranty companies, except those operating as risk retention groups, and state warranty plan agencies will submit their requests and supporting information to the Rural Development State Director in the state in which they plan to operate. State Directors will determine the acceptability of insured warranty plans and state warranty plans in their jurisdictions, notify the company or agency of the decision in writing and notify field offices by issuance of a State Supplement including the names and addresses of acceptable warranty companies and any other pertinent information.

(2) Warranty companies claiming authority as risk retention groups will submit their requests and supporting information including certification that it has complied with all requirements of the Products Liability Risk Retention Act of 1981 (Public law 97-45) and information indicating the state in which it is licensed, information to the Rural Development National Office, Single Family Housing Processing Division. The National Office will determine the acceptability of the warranty of a risk retention group, notify the company of the decision in writing and notify field offices by issuance of an attachment to this Exhibit.

V. Warranty Performance.

A. County Supervisors will report inadequate warranty performance through their District Director to the State Director. State Directors will review the situation, assist in resolving any problems and, if necessary, initiate action under Subpart F of Part 1924 of this chapter. State Directors will inform, by memorandum, the Director, Single Family Housing Processing Division, National Office, of any problems with warranty performance and if any debarment action is initiated.

B. State Directors will annually monitor each warranty company and/or its insurer to assure continued compliance with state licensing and/or regulatory requirements.

Acceptable Warranty Companies

The warranty companies listed below claim authority to act as a risk retention group under the Products Liability Risk Retention Act of 1981 and as such, to operate in all states to provide 10-year home warranties. This authority remains subject to future challenges by any state insurance commissioner or regulatory agency; however, until such challenge is made, Rural Development accepts their warranty.

<b>Name and Address</b>	<b>Area of Operation</b>
Home Buyers Warranty Corporation (HBW or 2-10) 2675 S Abilene Street Aurora, CO 80014 303-368-4805 800-488-8844	All States
Residential Warranty Corporation (RWC) 5300 Derry Street Harrisburg, PA 17111 717-561-4480 800-247-1812	All States
Manufactured Housing Warranty Corporation 5300 Derry Street Harrisburg, PA 17111 717-561-4480 800-247-1812	All States

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SEVEN STEPS TO COST CERTIFICATION  
(To be used with cost certification worksheet)

STEPS	RECOMMENDED RESPONSIBILITY
1. <b>Think cost certification!</b> Place more emphasis on obtaining acceptable certifications.	District Office (D/O)/State Office (S/O) Specialists, Architect
2. <b><u>Preliminary estimates (preapplication):</u></b>	
a. Compare unit cost with historic unit cost.	D/O or S/O
b. Note concerns and forward to S/O.	D/O or S/O
c. Compare with Marshall & Swift cost data.	S/O Specialist, Architect
d. Note concerns and return to D/O.	S/O Specialist Architect
e. Contact applicant re any discrepancies noted by D/O and S/O.	D/O or S/O
3. <b><u>Final Form RD 1924-13 estimates (application):</u></b>	
a. Determine if all previous discrepancies were corrected.	D/O or S/O
b. Check to see if all the types of materials which will be used in the project are reflected in corresponding line item entries.	D/O or S/O
If no entry in an applicable line item, make note for later action.	D/O or S/O
c. Recalculate totals to see if they agree with applicant's figures.	D/O or S/O

STEPS	RECOMMENDED RESPONSIBILITY
d. Calculate percentages for profit, overhead, and requirements to determine if they are within acceptable ranges.	D/O or S/O
e. Check to determine if contractor is qualified to build project.	D/O or S/O
f. Note results of steps a. through e. above and forward to S/O.	D/O or S/O
g. Compare line item costs with historic line item costs.	S/O, Architect
h. Match construction contract price with final cost estimates.	S/O, Architect
i. Reevaluate the cost estimates and D/O comments to determine if proposal is acceptable. If time span since preapplication exceeds 1 year, run another Marshall & Swift.	S/O Specialist, Architect
j. Determine if cost estimates were received from all identities of interest.	S/O Specialist, Architect
k. Check for applicant's attestation as to adequacy of accounting system.	S/O Specialist, Architect
l. Determine whether proposal is acceptable as presented; if not, note and return to D/O for correction.	S/O Specialist, Architect
m. Contact applicant re any discrepancies noted by D/O and S/O.	D/O or S/O
n. Determine if all discrepancies have been corrected.	D/O or S/O
o. Determine if cost estimates can be approved.	D/O or S/O

STEPS	RECOMMENDED RESPONSIBILITY
4. <u>Partial payments to contractor:</u>	
a. Recalculate arithmetic.	D/O or S/O
b. Verify that project architect concurs with pay estimates.	D/O or S/O
c. Verify that accumulated total for general requirements does not exceed final estimate.	D/O or S/O
d. Verify that accumulated total for overhead does not exceed final estimate.	D/O or S/O
e. Verify that accumulated total for profit does not exceed final estimate.	D/O or S/O
f. Verify that there are no expenses which were not shown on the final estimates.	D/O or S/O
g. Determine if there are any changes in the contract sum due to change orders.	D/O or S/O
h. Compare the accumulated total with percentage of completion shown on last Rural Development inspection report.	D/O or S/O
5. <u>Change orders:</u>	
a. Recalculate arithmetic.	D/O or S/O
b. Determine if change is justified.	D/O or S/O
c. Determine if change involves an identity of interest subcontractor or supplier.	D/O or S/O
d. Verify that the cost of the change is broken down between hard and soft costs.	D/O or S/O

STEPS	RECOMMENDED RESPONSIBILITY
e. Determine if borrower has provided additional funds for increases in the contract amount.	D/O or S/O
6. <u>Cost certification document:</u>	
a. Recalculate contractor's arithmetic.	D/O or S/O
b. Compare each certified line item cost with the final estimated line item cost to determine whether total of certified hard costs are more or less than estimated.	D/O or S/O, Architect
c. Determine if net hard costs exceeded the estimated amount and if the total contract amount was increased.	D/O or S/O
(i) If contract amount was not increased, determine if profit was reduced to offset the increase in costs.	D/O, S/O
(ii) If contract amount was increased, determine the source of additional funds.	D/O, S/O
d. If net hard costs were decreased, determine if profit or overhead were increase.	D/O, S/O
e. If overhead or general requirements exceeds its estimate, determine if profit was reduced to offset the increase.	D/O, S/O
f. If profit was decreased because of overruns in hard costs and soft costs were lower than anticipated, determine if profit was increased to bring it back to the original estimates.	D/O, S/O
g. Calculate percentages for profit, overhead, and requirements.	D/O, S/O

STEPS	RECOMMENDED RESPONSIBILITY
h. Determine if all line items relating to general requirements and general overhead were recorded under their proper categories.	D/O or S/O Architect
i. Match certified costs with partial payments.	D/O or S/O Architect
j. Verify that all discrepancies between accumulated payments and certified costs have been resolved.	D/O or S/O Architect
k. Check to see if cost certification was based on Generally Accepted Government Audit Standards requirements.	D/O or S/O
l. Check qualifications of person doing cost certification. Record name of Certified Public Accountant.	D/O or S/O
m. Determine if costs from all identities of interest were certified.	D/O or S/O Architect
n. Check amount of work which was subcontracted out to others.	D/O or S/O Architect
o. Determine if this was a Government contracted cost certification.	D/O or S/O
p. Check for disclosure of rebates and discounts.	D/O or S/O
q. Check opinion letter from CPA for identity of problems with audit.	D/O or S/O
7. <b><u>Final payment to contractor:</u></b>	
a. Recalculate arithmetic.	D/O or S/O
b. Verify that that project architect concurred with final pay request.	D/O or S/O

STEPS	RECOMMENDED RESPONSIBIITY
c. Verify that all construction work is completed.	D/O or S/O
d. Determine if releases of claimants were obtained.	D/O or S/O
e. Approve final payment to contractor.	D/O or S/O

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(INSTRUCTION SHEET ONLY - NOT TO BE INCLUDED  
AS PART OF THE CONTRACT DOCUMENTS)

CONTRACT DOCUMENTS

This guide is provided to assist USDA/Rural Development personnel and applicants in assembling and reviewing Contract Documents for more complex construction projects such as that administered under § 1924.13.

It is important when preparing or reviewing contract documents that all clauses are in conformance with Rural Development /Rural Housing Service (RHS) program requirements as well as those of State and local jurisdictions. These requirements may vary significantly depending on the relationship between the Owner and Contractor, the type of surety provided, if any, and the type of RHS financial assistance. All appropriate document modifications must be made before United States of America concurrence of the Contract.

Contract Documents may incorporate documents published by the American Institute of Architects (AIA) if they are the current editions and are used in accordance with copyright rules. A complete set of Contract Documents may include the following:

Item	Document
Advertisement for Bids	Attachment 1
Instructions to Bidders	AIA Document A701-1997
Attachment to Instructions to Bidders	Attachment 2
Bid	Attachment 3
Bid Bond	Attachment 4
Compliance Statement	Form RD 400-6
Notice of Award	Attachment 5
Standard Form of Agreement Between Owner and Contractor	AIA Document A101-1997
Attachment to Standard Form of Agreement Between Owner and Contractor	Attachment 6
Certificate of Owner's Attorney	Attachment 7
Contract Concurrence	Attachment 8
Payment Bond	RD Inst. 1924-A, Exh. F
Performance Bond	RD Inst. 1924-A, Exh. G
Notice to Proceed	Attachment 9
(continued next page)	

Item	Document
General Conditions of the Contract for Construction	AIA Document A201-1997
Attachment to General Conditions of the Contract for Construction	Attachment 10
Identity of Interest (IOI) Disclosure Certificate	Form RD 1944-30
Identity of Interest (IOI) Qualification	Form RD 1944-31
Contract Change Order	Form RD 1924-7
Application and Certificate for Payment	AIA Document G702-1992
Labor Standards Provisions	RD Inst. 1940-C, Exh. A
Wage Determinations	Department of Labor

Questions regarding the use of these documents should be referred to the State Office Architect or Engineer, or the RHS National Office Program Support Staff.

Attachments:

1. ADVERTISEMENT FOR BIDS
2. ATTACHMENT TO INSTRUCTIONS TO BIDDERS
3. BID
4. BID BOND
5. NOTICE OF AWARD
6. ATTACHMENT TO STANDARD FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR
7. CERTIFICATE OF OWNER'S ATTORNEY
8. CONTRACT CONCURRENCE
9. NOTICE TO PROCEED
10. ATTACHMENT TO GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

ADVERTISEMENT FOR BIDS

\_\_\_\_\_  
Owner

\_\_\_\_\_  
Address

\_\_\_\_\_  
Separate sealed BIDS for the construction of (briefly describe  
nature, scope, and major elements of the work) \_\_\_\_\_

\_\_\_\_\_  
will be received by \_\_\_\_\_  
at the office of \_\_\_\_\_  
until \_\_\_\_\_, (Local Time) \_\_\_\_\_, 19 \_\_\_\_\_, and then at  
said office publicly opened and read aloud.

The CONTRACT DOCUMENTS may be examined at the following locations:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Copies of the CONTRACT DOCUMENTS may be obtained at the office of  
\_\_\_\_\_ located at \_\_\_\_\_  
upon payment of \$ \_\_\_\_\_ for each set.

Any BIDDER, upon returning the CONTRACT DOCUMENTS promptly and in good condition, will be refunded the payment, and any non-bidder upon so returning the CONTRACT DOCUMENTS will be refunded \$\_\_\_\_\_.

All contracts exceeding \$10,000 shall contain a provision requiring compliance with Executive Order 11246, entitled, "Equal Employment Opportunity," as amended by Executive Order 11375 and as supplemented in Department of Labor regulations (41 CFR Part 60).

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DATE

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ATTACHMENT TO AIA DOCUMENT A701-1997, *INSTRUCTIONS TO BIDDERS*

The provisions of this Attachment shall delete, modify and supplement the provisions contained in the "*Instructions to Bidders*," AIA Document A701-1997 Edition. The provisions contained in this Attachment will supersede any conflicting provisions of the AIA Document. The term "Agency," as used in this Attachment, means the United States of America, acting through the United States Department of Agriculture.

ARTICLE 2, BIDDER'S REPRESENTATIONS

Add the following subparagraph:

2.1.5 This Bid has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this Bid with any other Bidder or with any competitor.

ARTICLE 4, BIDDING PROCEDURES

Add the following to subparagraph 4.1.1:

Only one copy of the Bid is to be submitted.

Delete subparagraph 4.2.1 and substitute the following:

4.2.1 Each Bid must be accompanied by a Bid Bond payable to the Owner for five percent of the total amount of the Bid.

Delete subparagraph 4.2.2 and substitute the following:

4.2.2 The Bid Bond shall be written on a form identical to that included in the Bidding Documents, and the attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of the power of attorney.

Add the words "payment and performance" before the word "bonds"; and add the following to subparagraph 4.2.3:

As soon as the Bid prices have been compared, the Owner will return the Bonds of all except the three lowest responsible Bidders. When the Agreement is executed, the bonds of the two remaining unsuccessful bidders will be returned. The Bid Bond of the successful Bidder will be retained until the Payment Bond and Performance Bond have been executed and approved, after which it will be returned.

Add the following to subparagraph to paragraph 4.2:

4.2.4 In the case of failure of the Bidder to execute the Agreement and obtain the Performance Bond and Payment Bond within the agreed time, the Owner may consider the Bidder in default, in which case the Bid Bond accompanying the bid shall become the property of the Owner.

Add the following subparagraphs to paragraph 4.3:

4.3.5 All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout.

4.3.6 The Bidder agrees to abide by the requirements under Executive Order No. 11246, as amended, including specifically the provisions of the Equal Opportunity Clause and the Standard Federal Equal Employment Opportunity Construction Contract Specifications set forth in the Supplementary Conditions.

4.3.7 Further, the Bidder agrees to abide by the requirements of section 319 of Public Law 101-121, which pertains to lobbying activities and applies to the recipients of contracts or subcontracts that exceed \$100,000 at any tier under a Federal loan that exceeds \$150,000 or a Federal Grant that exceeds \$100,000. Each Bid shall be accompanied by a completed lobbying certification form identical to that included in the Bidding Documents.

4.3.8 The Bidder agrees to abide by the requirements under 7 C.F.R. part 3017, which pertains to the debarment or suspension of a person from participating in a Federal program or activity. Each Bid exceeding \$25,000 shall be accompanied by a relevant completed certifications form identical to that included in the Bidding Documents.

Delete subparagraph 4.4.1 and substitute the following:

4.4.1 No Bidder may withdraw, modify or cancel a Bid within 60 calendar days after the actual date of the opening thereof. Should there be reasons why the Contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the Owner and the Bidder, and the concurrence of the Agency.

Delete the words ", if required," from subparagraph 4.4.4.

ARTICLE 5, CONSIDERATION OF BIDS

Delete subparagraph 5.3.2 and substitute the following:

5.3.2 The Owner shall have the right to accept Alternates in the sequence listed and to determine the low Bidder on the basis of the sum of the Base Bid and the Alternates accepted.

ARTICLE 7, PERFORMANCE BOND AND PAYMENT BOND

Delete subparagraph 7.1.1 and substitute the following:

7.1.1 Prior to execution of the Contract, the Bidder shall furnish bonds covering the faithful performance of the Contract and the payment of any obligations arising thereunder in such form and amount as the Owner may prescribe. Both bonds shall be separately written, each in the amount of the contract sum. The cost shall be included in the Bid.

Delete subparagraph 7.1.2 and substitute the following:

7.1.2 Surety companies executing bonds must hold a certificate of authority as an acceptable surety on Federal Bonds as listed in Treasury Circular 570, as amended, and be authorized to transact business in the State where the Project is located.

Delete subparagraph 7.1.3.

Delete subparagraph 7.2.1 and substitute the following:

7.2.1 The party to whom the Contract is awarded will be required to execute the Agreement and obtain a Performance Bond and Payment Bond within ten (10) calendar days from the date when the Notice of Award is delivered to the Bidder. The Notice shall be accompanied by the necessary Agreement and Bond forms.

Delete subparagraph 7.2.2 and substitute the following:

7.2.2 The bonds shall be written on forms identical to those included in the Bidding Documents.

(NOTE: Any additional provisions that are necessary to remain effective after execution of the Contract for Construction will be inserted here and continue in the same format.)

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BID

Proposal of \_\_\_\_\_ (hereinafter called "BIDDER"), organized and existing under the laws of the State of \_\_\_\_\_ doing business as \_\_\_\_\_\*. To the \_\_\_\_\_ (hereinafter called "OWNER").

In compliance with your Advertisement for Bids, BIDDER hereby proposes to perform all WORK for the construction of \_\_\_\_\_

in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below.

By submission of this BID, each BIDDER certifies, and in the case of a joint BID each party thereto certifies as to its own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

BIDDER hereby agrees to commence WORK under this contract on or before a date to be specified in the NOTICE TO PROCEED and to fully complete the PROJECT within \_\_\_\_\_ consecutive calendar days thereafter. BIDDER further agrees to pay as liquidated damages, the sum of \$ \_\_\_\_\_

\* Insert "a corporation", "a partnership", or "an individual" as applicable.

RD Instruction 1924-A  
Guide 1, Attachment 3

for each consecutive calendar day thereafter as provided in Article 3 of the Owner-Contractor Agreement.

BIDDER acknowledges receipt of the following ADDENDA:

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BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the following unit prices or lump sum:

BID SCHEDULE

NOTE: BIDS shall include sales tax and all other applicable taxes and fees.

<u>NO.</u>	<u>ITEM</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>	<u>TOTAL PRICE</u>
------------	-------------	-------------	-------------------	---------------	--------------------

NO.	ITEM	UNIT	UNIT PRICE	AMOUNT	TOTAL PRICE
-----	------	------	------------	--------	-------------

TOTAL OF BID . . . . . \$ \_\_\_\_\_  
LUMP SUM PRICE (if applicable) . . . . . \$ \_\_\_\_\_

Respectfully submitted:

\_\_\_\_\_  
Signature  
\_\_\_\_\_  
Title

\_\_\_\_\_  
Address  
\_\_\_\_\_  
Date

\_\_\_\_\_  
License number (if applicable)

SEAL - (if BID is by a corporation)

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BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, \_\_\_\_\_  
\_\_\_\_\_ as Principal, and  
\_\_\_\_\_ as Surety, are  
hereby held and firmly bound unto \_\_\_\_\_ as OWNER  
in the penal sum of \_\_\_\_\_  
for the payment of which, well and truly to be made, we hereby jointly and  
severally bind ourselves, successors and assigns.

Signed, this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

The Condition of the above obligation is such that whereas the Principal  
has submitted to \_\_\_\_\_ a certain  
BID, attached hereto and hereby made a part hereof enter into a contract  
in writing, for the \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOW THEREFORE,

- (a) If said BID shall be rejected, or
- (b) If said BID shall be accepted and the Principal shall execute  
and deliver a contract in the Form of Contract attachment hereto  
(properly completed in accordance with said BID) and shall furnish a  
BOND for faithful performance of said contract, and for the payment  
of all persons performing labor and/or furnishing materials in  
connection therewith, and shall in all other respects perform the  
agreement created by the acceptance of said BID, then this obligation  
shall be void, otherwise the same shall

remain in force and effect; it being expressly understood and agreed  
that the liability of the Surety for any and all claims hereunder  
shall, in no event, exceed the penal amount of this obligation as  
herein stated.

The Surety, for value received, hereby stipulates and agrees that the  
obligations of said Surety and its BOND shall be in no way impaired or  
affected by any extension of the time within which the OWNER may accept such  
BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands  
and seals, and such of them as are corporations have caused their corporate  
seals to be hereto affixed and these presents to be signed by their proper  
officers, the day and year first set forth above.

\_\_\_\_\_(L.S.)  
Principal

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

IMPORTANT - Surety companies executing BONDS must appear on the Treasury  
Department's most current list (Circular 570 as amended) and be authorized to  
transact business in the State where the project is located. Power of  
Attorney must be attached.

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NOTICE OF AWARD

TO: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PROJECT Description: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The OWNER has considered the BID submitted by you for the above described WORK in response to its Advertisement for Bids dated \_\_\_\_\_, 19\_\_\_\_, and Information for Bidders.

You are hereby notified that your BID has been accepted for items in the amount of \$ \_\_\_\_\_.

You are required by the Information for Bidders to execute the Agreement and furnish the required Contractor's Performance BOND, Payment BOND and certificates of insurance within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said BONDS within ten (10) days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the Owner's acceptance of your BID as abandoned and as a forfeiture of your BID BOND. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_  
Owner

By \_\_\_\_\_

Title \_\_\_\_\_

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged

by \_\_\_\_\_  
this the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_. By  
\_\_\_\_\_  
Title \_\_\_\_\_

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ATTACHMENT TO AIA DOCUMENT A101-1997, *Standard Form of Agreement Between Owner and Contractor*

The provisions of this Attachment shall delete, modify and supplement the provisions contained in the "*Standard Form of Agreement Between Owner and Contractor*," AIA Document A101-1997 Edition. The provisions contained in this attachment shall supersede any conflicting provisions of the AIA Document.

ARTICLE 3, DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

Delete paragraph 3.1 and substitute the following:

3.1 The date of commencement shall be contained in the Notice to Proceed.

Add the following to paragraph 3.3:

If the work is not substantially complete on or before this date, or within this period of time, or extension thereof granted by the Owner, damage will be sustained by the Owner and that it is and will be impracticable and extremely difficult to fix the actual damage which the Owner will sustain in the event of and by reason of such delays. The Contractor shall pay to the Owner liquidated damages in the sum of \$ \_\_\_\_\_ for each calendar day of delay. Any sums that may be due the Owner as liquidated damages may be deducted from any monies due or to become due the Contractor under the Contract or may be collected from the Contractor's surety.

ARTICLE 5, PAYMENTS

Insert "ten" and "10" in the appropriate spaces in clauses 5.1.6.1 and subparagraph 5.1.6.2.

Delete the last sentence of clause 5.1.6.1.

Delete the following from clause 5.1.6.2:

(or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing)

Delete subparagraph 5.1.8.

ARTICLE 8, ENUMERATION OF CONTRACT DOCUMENTS

The following Documents should be referenced, if applicable:

Subparagraph 8.1.3:

Attachment to the *Standard Form of Agreement Between Owner and Contractor* (RD Instruction 1924-A, Guide 1, Attachment 6)  
*General Conditions of the Contract for Construction*, AIA A201-1997  
Attachment to the *General Conditions of the Contract for Construction* (RD Instruction 1924-A, Guide 1, Attachment 10)  
Special Conditions

Subparagraph 8.1.7:

Advertisement for Bids (RD Instruction 1924-A, Guide 1, Attachment 1)  
*Instructions to Bidders*, AIA A701.1997  
Attachment to the *Instructions to Bidders* (RD Instruction 1924-A, Guide 1, Attachment 2)  
Bid (RD Instruction 1924-A, Guide 1, Attachment 3)  
Bid Bond (RD Instruction 1924-A, Guide 1, Attachment 4)  
Compliance Statement (Form RD 400-6)  
Payment Bond (RD Instruction 1924-A, Exhibit F)  
Performance Bond (RD Instruction 1924-A, Exhibit G)  
Notice of Award (RD Instruction 1924-A, Guide 1, Attachment 5)  
Identity of Interest (IOI) Disclosure Certificate (Form RD 1944-30)  
Identity of Interest (IOI) Qualification (Form RD 1944-31)  
Contract Concurrence (RD Instruction 1924-A, Guide 1, Attachment 8)  
Labor Standards Provisions (RD Instruction 1940-C, Exhibit A)  
Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions (Form AD 1048)  
Standard Form-LLL, "Disclosure of Lobbying Activities" (RD Instruction 1940-Q, Exhibit A)  
Certification for Contracts, Grants and Loans (RD Instruction 1940-Q, Exhibit A-1)

CERTIFICATE OF OWNER'S ATTORNEY

I, the undersigned, \_\_\_\_\_, the duly  
authorized and acting legal representative of \_\_\_\_\_  
\_\_\_\_\_, do hereby certify as follows:

I have examined the attached Contract(s) and Performance and Payment  
Bond(s) and the manner of execution thereof, and I am of the opinion that each  
of the aforesaid agreements has been duly executed by the proper parties  
thereto acting through their duly authorized representatives; that said  
representatives have full power and authority to execute said agreements on  
behalf of the respective parties named thereon; and that the foregoing  
agreements constitute valid and legally binding obligations upon the parties  
executing the same in accordance with terms, conditions, and provisions  
thereof.

\_\_\_\_\_

Date: \_\_\_\_\_

(NOTE: Delete phrase "Performance and Payment Bonds" when not applicable.)

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CONCURRENCE

The United States of America, as potential lender or insurer of funds to defray the costs of this Contract, and without liability for any payments thereunder, hereby concurs in the form, content, and execution of this Contract.

U.S. Department of Agriculture  
Rural Development  
Rural Housing Service

Date

Rural Development Official

Title

This Contract shall not be in full force and effect until concurred with by the State Director or the State Director's delegate, Rural Development, U. S. Department of Agriculture.

oOo

NOTICE TO PROCEED

TO: \_\_\_\_\_ DATE: \_\_\_\_\_  
\_\_\_\_\_  
Project: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

You are hereby notified to commence WORK in accordance with the Agreement dated \_\_\_\_\_, 19\_\_\_\_, on or before \_\_\_\_\_, 19\_\_\_\_, and you are to complete the WORK within \_\_\_\_\_ consecutive calendar days thereafter. The date of completion of all WORK is therefore \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_  
Owner

By \_\_\_\_\_

Title \_\_\_\_\_

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PRO-  
CEED is hereby acknowledged by \_\_\_\_\_  
\_\_\_\_\_

This the \_\_\_\_\_, 19\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

Employer Identification  
Number \_\_\_\_\_

oOo

ATTACHMENT TO AIA DOCUMENT A201-1997, *General Conditions of the Contract for Construction*

The provisions of this attachment shall delete, modify and supplement the provisions contained in the "*General Conditions of the Contract for Construction*," AIA Document A201-1997 Edition. The provisions contained in this attachment will supersede any conflicting provisions of the AIA Document. The term "Agency," as used in this Attachment, shall mean the United States of America, acting through the United States Department of Agriculture.

ARTICLE 1, GENERAL PROVISIONS

Add the following subparagraph:

1.2.4 Concurrence of the Contract by the Agency is required before it is effective and the "Concurrence" statement shall be attached to and made a part of the Agreement.

ARTICLE 2, OWNER

Delete subparagraph 2.2.5 and substitute the following:

2.2.5 The Contractor will be furnished, free of charge, five (5) copies of the Drawings and Projects Manuals necessary for execution of the Work. Additional copies will be available from the Architect at the cost of reproduction.

ARTICLE 3, CONTRACTOR

Delete subparagraph 3.7.1 and substitute the following:

The Owner shall secure and pay for the health and environmental impact fees due to water and sewer connections, and the zoning regulation fees and permits. The Contractor shall secure and pay for the building, mechanical, electrical, and plumbing permits and other governmental fees, licenses, and inspections necessary for proper execution of and completion of the Contract which are legally required when bids are received or negotiations concluded.

ARTICLE 4, ADMINISTRATION OF THE CONTRACT

Delete the last sentence of subparagraph 4.1.1 and substitute the following:

The term "Architect" means the Architect or the Engineer, when the nature of the work is within the authority granted engineers by the State licensure law, or an authorized representative.

Add the words "may be" after "on the parties but" in the last sentence of subparagraph 4.4.5.

Replace the word "shall" with the word "may" in the first and second sentences of subparagraph 4.6.1.

Delete subparagraph 4.6.2 and substitute the following:

4.6.2 The arbitration provisions of this section may be initiated by either party to this Contract by filing with the other party and the Architect a written request for arbitration. The other party may accept or reject the request by filing a written answering statement with the requesting party and the Architect within fourteen (14) calendar days of receipt of such request. If the request is accepted the provisions of this section will apply. If the request is rejected or an answering statement is not filed within the fourteen (14) day period, the provisions of this section will not apply.

4.6.2.1 Within fourteen (14) calendar days or any mutually agreeable time period thereafter, each party to this Contract will appoint one arbitrator. Within fourteen (14) calendar days or any mutually agreeable time period thereafter, the two arbitrators will select a third arbitrator. Failure to appoint the arbitrator(s) within the mutually agreeable time period will terminate further actions under this section.

4.6.2.2 The arbitrators will select a hearing location as close to the Owner's locale as possible.

4.6.2.3 The Procedure for conducting the hearings will follow the Construction Industry Arbitration Rules of the American Arbitration Association.

Delete subparagraphs 4.6.3, 4.6.4 and 4.6.5.

ARTICLE 5, SUBCONTRACTORS

Delete the first sentence of subparagraph 5.2.2 and substitute the following:

The Contractor shall not contract with any party who is suspended or debarred by any Federal government agency from participating in Federally assisted construction projects or to whom the Owner or the Architect has made reasonable and timely objection.

ARTICLE 7, CHANGES IN THE WORK

Delete the words ", Construction Change Directive" from subparagraph 7.1.1.

Insert the words ", Agency " after the word "Owner," and delete the words "; a Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor" in subparagraph 7.1.2.

Delete the words "Construction Change Directive" from subparagraph 7.1.3.

Delete subparagraph 7.2.1 and substitute the following:

7.2.1 A Change Order is a written order to the Contractor utilizing Form RD 1924-7, "Contract Change Order," signed by the Owner, Architect, Contractor, and the Agency representative. It is issued after the execution of the Contract, authorizing a change in the Work or an adjustment in the Contract Sum or the Contract Time. The Contract Sum and the Contract Time may be changed only by Change Order. The Contractor's signing of a Change Order indicates complete agreement therein. When the Contract Sum is based on unit price, a unit bid quantity may be increased or decreased by a maximum of twenty percent (20%) without invalidating the unit price.

Delete subparagraph 7.2.2 and substitute the following:

7.2.2 Methods used in determining adjustments to the Contract Sum may include any of the following:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluating.
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon.

Delete paragraph 7.3 in its entirety.

#### ARTICLE 8, TIME

Add the following subparagraphs:

8.2.4 The Notice to Proceed shall be issued within twenty (20) calendar days of the execution of the Agreement by the Owner. Should there be reasons why the Notice to Proceed cannot be issued within such period, the time may be extended by mutual agreement the Owner and Contractor, with the concurrence of the Agency. If the Notice to Proceed has not been issued within the twenty (20) calendar day period or within the period mutually agreed, the Contractor may terminate the Agreement without further liability on the part of either party.

8.3.4 As outlined in Article 3 of the Agreement, the Contractor agrees to pay liquidated damages to the Owner for each calendar day the Contractor shall be in default.

#### ARTICLE 9, PAYMENTS AND COMPLETION

Delete clause 9.3.1.1 and substitute the following:

9.3.1.1 Work performed and materials supplied under a Change Order may be included for payment only after the Change Order has been approved by all appropriate parties, including the Agency.

Delete Subparagraph 9.3.2 and substitute the following:

9.3.2 Unless otherwise provided in the Contract documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. Payment shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest.

Add the words ", using AIA Document 702, 'Application and Certificate for Payment' or Form RD 1924-18, 'Partial Payment Estimate'," after "Certificate for Payment" in subparagraph 9.4.1.

Add the following subparagraph:

9.6.8 No progress payments will be made that deplete the retainage, nor place in escrow any funds that are required for retainage, nor invest the retainage for the benefit of the Contractor. Retainage will not be adjusted until after construction is substantially complete.

Replace the word "seven" with the words "thirty (30)" in the first sentence , third line of subparagraph 9.7.1.

Add the words ", in collaboration with the Agency," after "prepare" in the first sentence of subparagraph 9.8.4.

Delete subparagraph 9.8.5 and substitute the following:

9.8.5 When the Work has been substantially completed, except for Work which cannot be completed because of weather conditions, lack of materials or other reasons, which, in the judgement of the Owner, are valid reasons for non-completion, the Owner may make additional payments, retaining at all times an amount sufficient to cover the estimated cost of the Work still to be completed.

Delete subparagraphs 9.9.1 through 9.9.3 and substitute the following:

9.9.1 The Contractor agrees to the use and occupancy of a portion or unit of the Project before formal acceptance by the Owner under the following conditions:

- .1 A "Certificate of Substantial Completion" shall be prepared and executed as provided in subparagraph 9.8.4, except that when, in the opinion of the Architect, the Contractor is chargeable with unwarranted delay in completing the Work or other Contract requirements, the signature of the Contractor will not be required. The Certificate of Substantial Completion shall be accompanied by a written endorsement of the Contractor's insurance carrier and surety permitting occupancy by the Owner during the remaining period of the Project Work. Occupancy by the Owner shall also be authorized by public authorities having jurisdiction over the Work.
  - .2 Occupancy by the Owner shall not be construed by the Contractor as being an acceptance of that part of the Project to be occupied.
  - .3 The Contractor shall not be held responsible for any damage to the occupied part of the Project resulting from the Owner's occupancy.
  - .4 Occupancy by the Owner shall not be deemed to constitute a waiver of existing claims in behalf of the Owner or Contractor against each other.
  - 1.5 If the Project consists of more than one building, and one of the buildings is to be occupied, the Owner, prior to occupancy of that building, shall secure permanent property insurance on the building to be occupied and necessary permits which may be required for use and occupancy.
- 9.9.2 With the exception of clause 9.9.1.5, use and occupancy by the Owner prior to Project acceptance does not relieve the Contractor of responsibility to maintain all insurance and bonds required of the Contractor under the Contract until the Project is completed and accepted by the Owner.

Delete the second and third sentences of subparagraph 9.10.2.

ARTICLE 11, INSURANCE AND BONDS

Replace the words "the Contract Documents" with the words "subparagraph 11.1.4" in the first sentence of subparagraph 11.1.2.

Add the following subparagraph:

- .1 Insurance shall be:
- .2 Written with a limit of liability of not less than \$500,000 for all damages arising out of bodily injury, including death, at any time resulting therefrom, sustained by any one person in any one accident; and a limit of liability of not less than \$500,000 aggregate for any such damages sustained by two or more persons in any one accident. Insurance shall be written with a limit of liability of not less than \$200,000 for all property damage sustained by any one person in any one accident; and a limit of liability of not less than \$200,000 aggregate for any such damage sustained by two or more persons in any one accident, or,
- .2 Written with a combined bodily injury and damage liability of not less than \$700,000 per occurrence; and with an aggregate of not less than \$700,000 per occurrence.

Add the following sentence to the end of subparagraph 11.4.1:

The policy shall name as the insured the Contractor and the Owner.

Insert the word "Owner" after the words "protect the interests of the" in the second sentence of clause 11.4.1.2.

Add the following sentence to the end of subparagraph 11.4.6:

The provisions of this subparagraph shall apply to the Contractor if the Contractor purchases and maintains said insurance coverage.

Delete subparagraph 11.4.7 in its entirety.

Delete subparagraph 11.5.1 and substitute the following:

11.5.1 The Contractor shall furnish the Owner bonds covering faithful performance of the Contract and payment of obligations arising thereunder within ten (10) calendar days after receipt of the Notice of Award. The surety company executing the bonds must hold a certificate of authority as an acceptable surety on Federal bonds as listed in Treasury Circular 570, and be authorized to transact business in the State where the Project is located. The bonds (using the forms included in the Bidding

Documents) shall each be equal to the amount of the Contract Sum. The cost of these bonds shall be included in the Contract Sum.

Add the following clauses:

11.5.1.1 The Contractor shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current power of attorney.

11.5.1.2 If at any time a surety on any such bond is declared bankrupt or loses its right to do business in the State in which the work is to be performed or is removed from the list of surety companies accepted on Federal Bonds, the Contractor shall within ten (10) calendar days after notice from the Owner to do so, substitute an acceptable bond in such form and sum and signed by such other surety or sureties as may be satisfactory to the Owner. The premiums of such bond shall be paid by any Contractor. No further payment shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable bond to the Owner.

Add the following paragraph:

#### 11.6 LATENT DEFECTS PROTECTION

11.6.1 If the Contractor does not furnish payment and performance bonds, he or she shall agree to provide surety or guarantee acceptable to the Owner and the Agency against latent obligations and defects in connection with the construction.

.1 The Contractor shall furnish a properly executed corporate latent defects bond, a maintenance bond, an unconditional and irrevocable letter of credit, or a cash deposit into a supervised bank account. Whichever instrument is used shall be in the amount of 10 percent of the Contract Sum.

- .2 The period of protection against latent obligations and defects shall be one year from the final acceptance of Work by the Owner and the Agency.
- .3 Final payment to the Contractor shall not be issued until the provisions of clause 11.6.1.1 have been met.

#### ARTICLE 13, MISCELLANEOUS PROVISIONS

Add the following paragraphs:

##### 13.8 FEDERAL INSPECTION

13.8.1 The authorized representatives and agents of the Federal Government shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records.

##### 13.9 LANDS AND RIGHTS-OF WAY

13.9.1 Prior to the start of construction, the Owner shall obtain all lands and rights-of-way necessary for the execution and completion of work to be performed under this contract.

##### 13.10 EQUAL OPPORTUNITY REQUIREMENTS

Non-discrimination in Employment by Federally Assisted Construction Contractors, by Executive Order 11246.

13.10.1 This section summarizes Executive Order 11246, which prohibits employment discrimination and requires employers holding non-exempt Federal contracts and subcontracts and federally-assisted construction contracts and subcontracts in excess of \$10,000 to take affirmative action to ensure equal employment opportunity without regard to race, color, religion, sex, or national origin. The Executive Order requires, as a condition for the approval of any federally assisted construction contract, that the applicant incorporate nondiscrimination and affirmative action clauses into its non-exempt federally assisted construction contracts.

13.10.2 Executive Order 11246, is administered and enforced by the Office of Federal Contract Compliance Programs (OFCCP), an agency in the U.S. Department of Labor's Employment Standards Administration. OFCCP has issued regulations at 41 C.F.R. chapter 60 implementing the Executive Order. The regulations at 41 C.F.R. part 60-4 establish the procedures which the Agency, as an administering agency, must follow when making grants, contracts, loans, insurance or guarantees involving federally assisted construction which is not exempt from the requirements of Executive Order 11246. The regulations which apply to Federal or federally assisted construction contractors also are published at 41 C.F.R. part 60-4.

13.10.3 OFCCP has established numerical goals for minority and female utilization in construction work. The goals are expressed in percentage terms for the contractor's aggregate workforce in each trade. OFCCP has set goals for minority utilization based on the percentage of minorities in the civilian labor force in the relevant area. There is a single nationwide goal of 6.9 percent for utilization of women. The goals apply to all construction work in the covered geographic area, whether or not it is federal, federally assisted or non-federal. A notice advises bidders of the applicable goals for the area where the project is to be located.

13.10.4 Application. This section applies to all of a construction contractor's or subcontractor's employees who are engaged in on-site construction including those construction employees who work on a non-Federal or non-Federally assisted construction site.

13.10.4.1 Agency officials will notify the appropriate Regional Director of OFCCP that an Agency financed construction contract has been awarded, and that the equal opportunity clauses are included in the contract documents.

13.10.4.2 The Regional Director, OFCCP-DOL, will enforce the non-discrimination requirements of Executive Order 11246.

13.10.5 The prospective contractor or subcontractor must comply with the Immigration Reform and Control Act of 1986, by completing and retaining Form I-9, "Employment Eligibility Verification," for employees hired. This form is available from the Immigration and Naturalization Service, and Department of Justice.

13.10.6 The prospective contractor or subcontractor must submit Form RD 400-6, "Compliance Statement," to the applicant and an Agency official as part of the bid package, prior to any contract bid negotiations and comply with the Executive Order 11246 as stated in the contract documents.

### 13.11 STATUTES

13.11.1 The Contractor and each Subcontractor shall comply with the following statutes (and with regulations issued pursuant thereto, which are incorporated herein by reference):

13.11.1.1 Copeland Anti-Kickback Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 C.F.R. part 3). This Act provides that each Contractor shall be prohibited from inducing, by any means, any person in connection with construction to give up any part of the compensation to which the person is otherwise entitled.

13.11.1.2 Clean Air Act (42 U.S.C. 7414), section 114, and Water Pollution Control Act (33 U.S.C. 1813), section 308. Under Executive Order 11738 and Environmental Protection Agency (EPA) regulations 40 C.F.R. part 15, all Contracts in excess of \$100,000 are required to comply with these Acts. The Acts require the Contractor to:

- .1 Notify the Owner of the receipt of any communication from EPA indicating that a facility to be utilized in the performance of the Contract is under consideration to be listed on the EPA list of Violating Facilities.
- .2 Certify that any facility to be utilized in the performance of any nonexempt Contractor or Subcontractor is not listed on the EPA list of Violating Facilities as of the date of the Contract Award.
- .3 Include or cause to be included the above criteria and requirements of paragraphs .1 and .2 in every nonexempt subcontract, and that the Contractor will take such action as the Government may direct as a means of enforcing such provisions.

13.11.1.3 Davis-Bacon Act (40 U.S.C. 276a) as supplemented in Department of Labor regulations (29 C.F.R. part 5). If applicable, the Contractor must comply with the minimum rates for wages for laborers and mechanics as determined by the Secretary of Labor in accordance with the provision of this Act.

13.11.1.4 Restrictions on Lobbying (Public Law 101-121, section 319) as supplemented in Department of Agriculture regulations (7 C.F.R. part 3018). This statute applies to the recipients of contracts or subcontracts that exceed \$100,000 at any tier under a Federal loan that exceeds \$150,000 or a Federal grant that exceeds \$100,000. If applicable, the Contractor must complete a certification form on lobbying activities related to the specific Federal loan or grant that is a funding source for this contract. The certification and disclosure forms shall be provided by the Owner.

#### 13.12 RECORDS

13.12.1 If the Contract is based on a negotiated Bid, the Owner, the Agency, the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the Contractor which are pertinent to a specific Federal loan program for the purpose of making audit, examination, excerpts, and transcriptions. The Contractor shall maintain records for at least three years after the Owner makes final payment and all other pending matters are closed.

#### 13.13 IDENTITY OF INTEREST

13.13.1 The Owner will complete and sign Form RD 1944-30, "Identity of Interest (IOI) Disclosure Certificate." If applicable, the Contractor or any Subcontractor, Material Supplier, or Equipment Lessor sharing an identity of interest will, prior to receipt of any payment, complete and sign Form RD 1944-31, "Identity of Interest (IOI) Qualification."

13.13.2 If and when an identity of interest exists, the Contractor, Subcontractor, Material Suppliers, or Equipment Lessor:

13.13.2.1 Will, prior to receipt of any payment, provide the Owner and the Agency a written assertion that it has an accounting system suitably designed to provide for a line-item basis comparison of the actual cost with the estimated cost.

13.13.2.2 Will, prior to receipt of any payment, provide the Owner and the Agency with a detailed breakdown of the estimated cost amount for evaluation, using Form RD 1924-13, "Estimate and Certificate of Actual Cost."

13.13.2.3 Will deduct any discounts or rebates from invoices provided to the Owner for payment. Any discounts or rebates received on invoices already paid by the Owner will be refunded to the Owner or subtracted from any payment retainage.

13.13.2.4 Will not be entitled to receive payment for general overhead, profit, or general requirements, respectively, in excess of the amounts represented on the estimate of cost breakdown in accordance with clause 13.13.2.2.

13.13.2.5 Will, prior to receipt of final payment, provide the Owner and the Agency with a detailed breakdown of the actual cost compared to the estimated cost, using Form RD 1924-13. When required, the actual cost will be audited by a Certified Public Accountant, or Licensed Public Accountant licensed on or before December 31, 1970, who will provide an opinion concerning whether the actual construction costs present fairly the costs of construction in conformity with eligible construction costs as prescribed in Rural Development regulations.

13.13.2.6 Will, prior to receipt of final payment, provide the Owner and the Agency with documentation on all Form RD 1924-13 actual cost line items that are a minimum of fifteen percent (15%) higher or lower than the estimated costs. The documentation will provide justification for the deviations.

13.13.3 If and when an identity of interest exists between the Owner and Contractor, the Contractor is entitled to receive a builder's fee (general overhead and profit) only when the highest subcontract Sum is no more than fifty percent (50%) of the Contract Sum, and the total of the highest three Subcontract Sums is no more than seventy-five percent (75%) of the Contract Sum. Any payments made to the Contractor for a builder's fee to which contractor is not entitled will be refunded to the Owner or subtracted from any payment retainage.

#### 13.14 ENVIRONMENTAL REQUIREMENTS

13.14.1 Mitigation Measures - The contractor shall comply with applicable mitigation measures established in the environmental assessment for the project. These may be obtained from the Agency representative.

13.14.2 Endangered Species - The Contractor shall comply with the Endangered Species Act. Should any evidence of the presence of endangered or threatened species or their critical habitat be brought to the attention of the Contractor, the Contractor will immediately report this evidence to the Architect and the Agency representative. Construction shall be halted pending the notification process and further directions issued by the Agency after consultation with the U.S. Fish and Wildlife Service.

13.14.3 The Contractor, when constructing a Project involving trenching, excavating, or other earth moving activity, shall comply with the following environmental constraints:

13.14.3.1 Historic Preservation - Any excavation or other earth moving activity by the Contractor that uncovers a historical or archaeological artifact shall be immediately reported to the Architect and the Agency representative. Construction shall be halted pending the notification process and further directions issued by the Agency after consultation with the State Historic Preservation Officer or other appropriate historic preservation official.

13.14.3.2 Human Remains and Cultural Items - Any excavation or other earth moving activity by the Contractor that uncovers human remains or cultural items shall be immediately reported to the Architect and the Agency representative. Construction shall be halted pending the notification process and further directions issued by the Agency after consultation with the appropriate authorities.

13.14.3.3 Paleontology - Any excavation or other earth moving activity by the Contractor that uncovers a fossil or other paleontological materials that may have scientific significance shall be immediately reported to the Architect and the Agency representative. Construction shall be halted pending the notification process and further directions issued by the Agency after consultation with appropriate authorities.

13.14.3.4 Wetlands - The Contractor, when disposing of excess, spoil, or other construction materials on public or private property, will not fill in wetlands.

13.14.3.5 Floodplains - The Contractor, when disposing of excess, spoil, or other construction materials on public or private property, will not fill in 100-year floodplain areas delineated on the latest Federal Emergency Management Administration floodplain maps.

13.14.4 Lead-Based Paint - The Contractor and Owner shall comply with applicable Agency requirements of the Lead-Based Paint Poisoning Prevention Act, as amended (42 U.S.C. 4821), and the Residential Lead-Based Paint Hazard Reduction Act of 1992 (42 U.S.C. 4851) for rehabilitation work on residential property built prior to 1978.

#### 13.15 DEBARMENT AND SUSPENSION

13.15.1 The Contractor shall comply with the requirements of 7 C.F.R. part 3017, which pertains to the debarment or suspension of a person from participating in a Federal program or activity.

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RD Instruction 1924-A  
Guide 2

GUIDE 2

Rural Development DESIGN GUIDE

## FOREWORD

This Guide is designed to assist Rural Development personnel determine and evaluate design features which are not fully described in local building codes or the development standards for rural housing proposals requesting financing from the Agency. Housing proposals should address the liveability and marketability objectives in the Rural Development Manual of Acceptable Practice (MAP) and this Guide. Substantial deviation from these objectives should be evaluated in the appraisal process and reflected in the present market value of the proposed housing.

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CHAPTER 3  
SITE DEVELOPMENT

300 GENERAL

Site development includes the arrangement of all site facilities necessary to create a safe, functional, convenient, healthful, durable and attractive living environment for residents.

This chapter gives basic guidelines and considerations to be used by an applicant or builder-developer in planning subdivisions, individual sites, and Multi-Family Housing developments. Site development requirements are prescribed in RD Instruction 1924-C, Exhibit B.

300-1 REFERENCES

There are a number of references that may be helpful in planning site development. The following is a partial listing of such references:

- (a) Manual of Acceptable Practice: RD 4930.1
- (b) Architectural Graphic Standards; American Institute of Architects
- (c) Handbook of landscape Architectural Construction; American Society of Landscape Architects
- (d) Grade Easy - An Introductory Course in the Principles and Practices of Grading and Drainage; American Society of Landscape Architects Foundation
- (e) Urban Hydrology for Small Watersheds; SCS-TR-55
- (f) A Method of Estimating Volumes and Site Runoff in Small Watersheds; SCS-TP-149
- (g) Handbook of Channel Design for Soil and Water Conservation; SCS-TP-61
- (h) Simplified Method for Determining Floodwater Retarding Storage; SCS-TR-3
- (i) Hydrology; SCS-NEH-Section 4
- (j) Residential Streets; Urban Land Institute, American Society of Civil Engineers, National Association of Home Builders;

(k) Residential Storm Water Management; Urban Land Institute, American Society of Civil Engineers, National Association of Home Builders;

(l) Residential Erosion and Sediment Control; Urban Land Institute, American Society of Civil Engineers, National Association of Home Builders;

(m) Residential Development Handbook; Urban Land Institute;

(n) Geometric Design Guide for Local Roads and Streets; American Association of State Highway Officials;

(o) A Guide for Accommodating Utilities on Highway Rights-of-Way; American Association of State Highway and Transportation Officials

301 LAND USE

301-1 GENERAL

Land use planning for all housing should relate appropriately to all site conditions and to the existing or permissible development of adjoining properties.

301-2 BUILDING LOCATION AND ARRANGEMENT

301-2.1 The use of a proposed site should be planned for buildings so arranged on the site and having characteristics which assure that:

(a) The property has adequate visual appeal.

(b) The property can be operated and maintained at costs reasonably related to income.

(c) The land use and other site planning standards are met, and

(d) Zoning and other local regulations are complied with.

301-2.2 The building arrangement and location should relate well:

(a) To the natural topography, avoiding deep cuts, fills, excessive foundation wall depth, unnecessary steps and steep access gradients.

(b) To climatic conditions, assuring maximum benefit from and protection against, as appropriate, sun, wind, temperature, precipitation, etc., and

(c) To attractive on-site and off-site views.

301-2.3 The building location, arrangement, and orientation should assure adequate open space for outdoor living areas, all facilities, services, amenities, and for interior natural light, air and privacy. Undesirable outlook from windows of rooms for daytime use should be avoided.

301-3 INTENSITY OF DEVELOPMENT

The number, size and type of dwelling, along with parking spaces, recreation and other open spaces should be determined by the characteristics of the site, its location, land cost, and acceptability by the community.

301-4 NOISE CONTROL

Through the use of site design techniques such as building location and orientation, window placement and the use of barriers, predictable undesirable site noise should be tolerated to as close to clearly acceptable levels as practicable. See HUD-PDR-735 "Noise Assessment Guidelines."

301-5 SITE SURROUNDINGS

The site design should be arranged when practical and possible to harmonize with the complement functions and appearance of site surroundings which have a significant bearing on the site. Where the surroundings of a site have incongruous functions or undesirable visual conditions, buffers or screen devices sufficient to separate or modify these unpleasant conditions should be provided.

301-5.1 No site should be developed where external influences on the site create conditions undesirable for residential use such as:

(a) Hazardous landslides, falling rock, or other unstable slope conditions due to site topographic or geologic conditions;

(b) Unusual terrain features such as steep slopes, abutting rock formations, or other conditions affecting construction, drainage, or livability;

(c) Unusual risks from natural hazards such as geologic faults, flash floods, volcanic activity, mudslides or fires, or from the presence of ponds, or hazardous terrain features;

(d) Unwarranted risks from man-made hazards such as the presence of hazardous materials, or the presence of potentially hazardous industrial activity or material in the surrounding area;

(e) Nuisances from odors, vibrations, unsightly areas, nearby landfills, inconvenience or other nuisances.

301-6 BLOCKS

301-6.1 The lengths, widths and shapes of blocks should be determined with due regard to:

(a) Provision of adequate building sites suitable to the special needs of the type of use contemplated.

(b) Zoning requirements as to lot sizes and dimensions.

(c) Needs for convenient access, circulation, control and safety of street traffic.

(d) Limitations and opportunities of topography.

301-6.2 Block lengths generally should not exceed 1600 feet nor be less than 400 feet.

301-6.3 Blocks should be wide enough to allow two tiers of lots of minimum depth. However, where this would require lots to front on an arterial street or highway or where topographical conditions of the size of the property prevent two tiers of lots, single lots with necessary alterations may be used.

301-6.4 When double tiered blocks are over 800 feet in length, a 10-foot wide pedestrian access easement is recommended near the center of the block for circulation or access to schools, playgrounds, shopping centers, transportation and other community facilities.

301-6.5 Intersections with arterial streets should be held to a minimum and preferably spaced at least 1000 feet apart.

302 UTILITIES

302-1 GENERAL

The site design should provide for all utilities in a manner which allows economy in construction and maintenance.

302-1.1 The site design should be arranged to recognize existing easements, utility lines, etc., and permit connection to existing facilities where necessary for the proper functioning of drainage and utilities.

302-2 INSTALLATION

Guide 2 Chapter 3: Pgs 3-5 through 3-14 in PDF ONLY.

303-6.1.1 All driving and parking areas should have sufficient gradient to provide for adequate drainage. Storm sewers or drainage ditches should be provided to accept surface run-off and prevent pooling on roadway areas. In arid or semi-arid areas, the roadway may be designed with an inverted crown to accommodate occasional run-off. Subsurface drainage should be adequate to maintain a stable subgrade.

303-6.1.2 The subgrade should provide a stable platform for the base and wearing surface under all anticipated geologic, hydrologic and climatic conditions. The subgrade should be judged acceptable according to soil type and anticipated traffic loads.

(a) In-place soil should not contain amounts of muck, clay, veritable matter or other elements which will detrimentally affect the structure of the roadway. Where these elements do occur the stabilization procedures outlined below should be followed. The subgrade should be thoroughly compacted to a density necessary to support the roadway.

(b) Fill material should be free from muck, clay, vegetable matter or other elements which will detrimentally affect the structure of the roadway. All fill should be compacted according to the characteristics of the acceptable in-place soil, the fill soil and anticipated traffic loads. Where extensive fill is required, the design should be executed by a qualified professional engineer.

(c) Compaction should be adequate for the design load of the roadway plus a 25 percent impact load. State or local regulations should be followed in the determination of acceptable practice.

(d) In areas where soil in-place is not adequate for use as a street subgrade, appropriate stabilization should be utilized. Soil cement, lime and calcium chloride are the most commonly used stabilization elements and their use for each particular case should be determined by a competent engineering study or by local regulations.

303-6.1.3 The base should be constructed in a manner which will provide a suitable course for the application of the final surfacing. The composition and depth of the base should be appropriate for the type and amount of traffic anticipated. The types listed below are generally acceptable base materials and others may be used according to local conditions.

(a) Gravel Base. This base should consist of gravel and filler constructed on a prepared subgrade. The material should be free from organic matter and lumps or balls of clay; and such

Material should be removed and replaced with approved material. The base thickness should be determined by the projected road usage and should be placed in layers not to exceed three (3) inches in thickness after compaction. The base course material should not be deposited or shaped on a frozen or thawing subgrade or during unfavorable weather conditions.

(b) Crushed Stone Base. This base should consist of crushed stone constructed on a prepared subgrade. The material should consist of hard, durable particles or fragments of stone, free from an excess of flat, elongated, soft or disintegrated pieces, dirt or other objectionable matter. The base thickness should be determined by the projected road usage and should be placed in layers not to exceed three (3) inches in thickness after compaction. After the coarse aggregate has been thoroughly compacted, choker stone should be gradually applied to fill all voids. No base course material should be deposited or shaped when the subgrade is frozen or thawing or during unfavorable weather conditions.

(c) Soil Cement Base. This base should consist of a combination of soil and portland cement uniformly mixed, moistened and compacted. Water should be from oil, acids, alkali and vegetable matter and should be reasonably clean. Soil for this base course should consist of the soil found in place, and any additional soil that may be required should be treated as necessary for use as a base material. Prior to mixing, the soil should be pulverized for the full width and sufficient depth of the roadway. The specified quantity of portland cement should be spread in one operation and thoroughly mixed before the application of water and compaction. After compaction, the roadway should be cured for an appropriate period of time and traffic should be prohibited during this time.

(d) Asphaltic Concrete Base. This base should be composed of a combination of coarse aggregate, fine aggregates and bituminous cement mixed in a central plant. Asphaltic cement to be used in the asphaltic concrete should be uniform in character, free from water and should contain no mineral matter other than that naturally present. Aggregate should consist of fine gravel and sand, disintegrated granite, or other similar granular materials. Where cement concrete or masonry edging is not used, suitable side forms of wood or steel should be placed. Placing of the mixture should be as continuous as possible with all joints well bonded and sealed. After spreading, the mixture should be thoroughly compacted with a power drive roller according to accepted practices. No asphalt material should be laid when the temperature of the air is 50 degrees

Fahrenheit and falling or during other unfavorable weather conditions.

303-6.1.4 Hard surfaced wearing surfaces, when required, should be of adequate design for the projected traffic loads. Local regulations, availability of materials, and maintenance facilities will dictate the type of paving to be used. The following types of paving are generally acceptable, although some types may not be locally accepted, or additional materials may be used according to local regulations.

(a) Portland Cement Concrete Pavement. This surface should consist of water, aggregate and cement in the required proportions. Forms should be placed to acceptable tolerances, properly braced, and well oiled before placement of the material. The concrete should be deposited rapidly and leveled according to approved methods. Finishing should be done to remove free water, to provide the desired final appearance and to correct surface irregularities. Expansion and contraction joints should be provided at the required intervals. Properly protected curing for a minimum 72 hours should be observed. No concrete should be placed on a frozen or thawing subgrade or during unfavorable weather conditions, or when the temperature is 38 degrees and falling.

(b) Double Bituminous Surface Treatment (Cutback Asphalt). This surface should consist of three applications of bitumen and a spreading of coarse aggregate and seal coat aggregate on a prepared base. Bituminous materials should conform to applicable specifications. Aggregate should be crushed stone and should consist of particles of clean, hard, tough, durable, uncoated rock fragments and should be reasonably free from an excess of flat, elongated soft or disintegrated pieces, organic or other objectionable matter and should be free from lumps of clay. The bitumen should be applied with a pressure-type power distributor. A prime coat should be uniformly spread and allowed to set up. A second coat should be applied followed immediately by an application of coarse aggregate which should be uniformly rolled. A seal coat of bitumen and aggregate should be applied after all loose and excess aggregate have been removed from the first coating. No materials should be placed when either the temperature of the air or base on which the material is to be placed is 50 degrees Fahrenheit and falling or during unfavorable weather conditions.

(c) One Course Asphaltic Wearing Surface. This surface should consist of a wearing course composed of aggregate and bituminous material mixed in a central plant. Liquid asphalt should be of acceptable quality. Asphalt cement to be used in

The asphaltic concrete should be uniform in character, free from water and should contain no mineral matter other than that naturally present. Aggregate should consist of fine gravel and sand, disintegrated granite and other similar granular materials. The existing surface should be cleaned before application of the tack coat by a pressure-type power distributor. The bituminous mixture should be spread, raked and rolled in an acceptable manner. Longitudinal and transverse joints should be well bonded and sealed. No asphalt material should be laid when the temperature of the air is 50 degrees Fahrenheit and falling or during unfavorable weather conditions.

(d) Asphaltic Concrete Wearing Surface. This surface should consist of aggregate and bituminous material mixed in a central plant. Asphalt cement to be used in the asphaltic concrete should be uniform in character, free from water and should contain no mineral matter other than that naturally present. Aggregate should consist of fine gravel and sand, Aggregate disintegrated granite or other similar granular materials. The bituminous mixture should be spread, raked and rolled in an acceptable manner. Longitudinal and transverse joints should be well bonded and sealed. No asphalt material should be laid when the temperature of the air is 50 degrees Fahrenheit and falling or during unfavorable weather conditions.

303-6.1.5 All-weather surfaces, where acceptable, should be designed to accommodate the projected traffic load. The subgrade and base should be constructed in a manner similar to hard-surface roads so that hard surfacing can be easily accomplished at a later date. The following types are generally acceptable and other types may be used dependent upon local conditions.

(a) Layered Oil Surface. This surface should consist of aggregate and waste oil thoroughly mixed and compacted. The base should be scarified and oil applied by a pressure-type power distributor. This process should be repeated a number of times until the mixture is consistent to an acceptable depth. Final compaction should provide a regular surface with the required density.

(b) Gravel Surface. This surface should consist of course and fine aggregates applied in a manner similar to gravel bases. If the gravel wearing surface is for long-term usage, a permanent gravel or crushed stone base should be covered with a layer of aggregate selected or treated to minimize dust in use. Where hard surfacing is anticipated within 24 months, a suitable gravel base may be used as a driving surface provided adequate maintenance is performed and the base is adequately required before application of the hard surfacing.

303-7 RELATED IMPROVEMENTS

303-7.1 Planting Strips. When provided, should not be less than twelve (12) inches in width. Plantings at intersections should not interfere with lines of sight necessary for safe driving conditions.

303-7.2 Street Trees. Street trees, of a variety and size in accordance with the standards adopted by the local governing body, may be planted between street and curb and gutter and sidewalk.

303-7.3 Street Lighting. In addition to the required street intersection lighting, it may be desirable for a subdivider to install street lights throughout the subdivision. In these cases, a subdivider should conform to the requirements generally in use in the area and payment for electrical power use for the street lighting should be that in common practice in the area. Generally, the public body that accepts maintenance of the streets will provide the power for street lighting.

304 GRADING DESIGN

304-1 GENERAL

304-1.1 Site grading should be designed to establish building floor elevations and ground surface grades which:

(a) Minimize earth settlement problems.

(b) Avoid concentrating run off onto neighboring properties where erosion or other damage will be caused.

(c) Provide useable outdoor space.

(d) Minimize erosion.

(e) Avoid deep cuts and fills.

(f) Minimize the need for banks, retaining walls or terracing, and avoid long or repeated flights of steps.

304-1.2 Grades should not be designed which direct a concentrated flow of surface drainage over existing or proposed slopes.

304-1.3 All earth slopes with grades of three on one or steeper should be planted with appropriate vegetative cover to minimize erosion.

(5-12-87) SPECIAL PN

304-1.4 Occupant and visitor exposure to potential hazards such as rock slides or steep cliffs, created by existing slopes, should be minimized by the installation of fences, walls or planting, as appropriate.

304-1.5 Maximum gradient for useable open areas should be 5.0 percent.

305 DRAINAGE

305-1 GENERAL

Provisions should be made for the best available routing of runoff water to assure that buildings or other important facilities will not be endangered by the path of major emergency flood runoff which would become active if the capacity of the site storm drainage system is exceeded.

305-2 SWALES AND OPEN DITCHES

305-2.1 In areas provided with open drainage ditches, locations where these facilities intersect streets should have culverts, riprap and bulkheads adequately sized and constructed to prevent the flow of water across the pavement surfaces and erosion of the roadway base.

305-2.2 Where a swale or drainage ditch intersects a sidewalk or driveway, an adequately sized culvert or bridge should be provided. Walks should not be designed as drainage ways.

305-3 STORM SEWERS

305-3.1 A storm sewer or swale discharge into ponds, swales or ditches should have either riprap, headwall, or other similar protection to prevent undermining of the cutlet pipe and erosion of the side slopes.

305-3.2 Consideration should be given to emergency outlets when the storm sewer system is inoperable due to blockage or when the design capacity has been exceeded.

Headwalls and other appropriate construction should be placed at the open ends of storm sewers to prevent excessive erosion and undermining of conduit.

305-4 SUBSURFACE DRAINAGE

305-4.1 Developed portions of a site which can be adversely affected by a potentially high ground water table should be drained where possible by subsurface drainage facilities adequate for the disposal of excess ground water.

305-4.2 Drywells should be placed a minimum distance of 20 ft. from buildings. This distance may be reduced to 10 ft. if the drywell does not exceed 3 ft. in diameter.

306 THE PROPOSED SITE

306-1 GENERAL

The site design should be arranged to utilize and preserve the favorable features and characteristics of the site and to avoid or minimize the potential harmful effect of unfavorable features.

306-2 TOPOGRAPHY

In the design of a site, the effect of topographic conditions on the costs of development and operation should be considered when locating various uses on the land. Land uses should be combined with site conditions in a manner which assures a functional and economically maintainable development and in a manner which permits correction of potential hazards.

306-2.1 Ground Contours

All elements of the site plan should be designed to fit the natural contour of the land as closely as possible and practicable.

306-2.2 Vegetation

Existing healthy trees, shrubs, and natural cover of good quality which will contribute to the living environment and which can be saved within the site design should be preserved.

306-3 GROUND WATER

Buildings, structures, streets, paved areas and utilities should be located on the site in areas of the least potential ground water hazard.

305-4 LOT LAYOUTS

306-4.1 Corner lots for residential use should have extra width to permit appropriate building setback from and orientation to both streets.

306-4.2 The subdividing of the land should be such as to provide each lot with satisfactory access to an existing public street or highway.

insert diagram

DIAGRAM 10. MAKE SHALLOW LOTS DEEPER AND CORNER LOTS LARGER.

306-4.3 In the absence of local regulations on lot dimensions, the area, width, depth, shape and orientation and the minimum building setback lines should be appropriate for the location of the site and for the type of development and use contemplated.

Guide 2 Chapter 3: Pgs 3-23 and 3-24 in PDF ONLY.

306-4.7 Side lot lines should be substantially at right angles or radial to street right-of-way lines.

306-4.8 Desirable natural features such as streams or lakes should be deeded to the local governing body or homeowners association. An easement not less than 10 feet in width should be provided for access to and circulation around any common natural feature.

307 YARDS AND BUILDING SETBACK DISTANCE

307-1 GENERAL

307-1.1 The length and height of each building wall, the location of the main entrance as it relates to the dwelling and to window walls of nearby dwellings, and the location of windows in all habitable rooms should be considered in establishing yard depth.

307-1.2 Building setback distance from the street should provide for reasonable privacy and minimize the adverse effects of traffic and other noises, fumes, and headlight glare.

307-2 SIDE AND REAR YARDS

307-2.1 Yard space between exterior building walls and the adjacent lot line should be measured perpendicular to the lot line opposite the building wall at all points. The minimum distance from the wall to the lot line is determined by:

- (a) The height of the wall in stories.
- (b) The horizontal length of the wall from corner to corner.
- (c) The type of wall
  - (1) Primary Wall is that wall which contains the principal window(s) in a habitable room except bedrooms and kitchen, and/or the main entrance to the dwelling when it directly faces a primary wall of another dwelling.
  - (2) Secondary Wall is that wall which contains the windows of rooms for other than a primary wall as defined above.
  - (3) Windowless Wall is that wall which contains no windows.

307-2.2 Minimum distance from building wall to lot lines should be:

- (a) Primary Wall

6 ft. plus 2 ft. for each story (S) in height plus 1 ft. for each 10 ft. of length (L).  $D = 2S + L/10$

(5-12-87) SPECIAL PN

- (b) Secondary Wall  
2 ft. + 1 ft. for each story (S) in height plus 1 ft. for each 10 ft. of length (L), minimum distance 5 ft.  $D = 2 + S + L/10$ .
- (c) Windowless Wall  
Yard depth for walls containing no windows, or only windows which do not involve loss of privacy for required interior space should be no less than 8 feet.
- (d) Retaining Wall  
The distance between a building wall with habitable room windows and a retaining wall with the top above the midpoint of the vertical height of the lowest window should be a minimum of the appropriate primary or secondary wall distance, see above, treating the retaining wall as a lot line.

307-3 DISTANCE BETWEEN BUILDINGS

- 307-3.1 The distance between buildings should not be less than the sum of the yards of the individual wall types recommended by section 307-2.2.
- 307-3.2 Where a window wall is opposite a windowless wall, the distance between buildings is determined by the required yard space for the window wall.
- 307-3.3 Where opposing walls have no windows, there is no required distance between buildings other than for fire protection.

307-4 BUILDING STREET SETBACK DISTANCE

- 307-4.1 The setback distance of buildings from the front property line and the street side lot line of corner properties should:
  - (a) Be diversified to assure visible variety in building and space relationship avoiding monotony.
  - (b) Be consistent with the best building placement considering the topography and other site conditions.
  - (c) Provide space for facilities for necessary functions such as walks, drives, parking space and plant materials.
  - (d) Be adequate to assure reasonable visual and auditory privacy for indoor and outdoor living areas.
  - (e) Minimize adverse effects of fumes, headlight glare, and other nuisances.

307-4.2 Buildings should be set back from parking areas and screened to minimize headlight glare into habitable rooms and should be arranged to prevent direct or concentrated discharge of automobile exhausts into any window.

308 PARKING AREAS

308-1 GENERAL

Adequate parking space should be provided for residents, guests and, where appropriate, service vehicles. Where practical, additional parking space should be planned and reserved for future use.

308-2 NUMBER OF SPACES

308-2.1 The number of parking spaces to be provided should be based on individual analysis of each housing proposal.

308-2.2 Detached single family housing should have one parking space per unit on each lot. This space should have an all-weather surface and minimum dimensions of 10 feet by 22 feet.

308-2.3 Off-site parking spaces for multi-family housing may be substituted for onsite parking, if available, and acceptable to the local authorities.

308-3 PARKING BAYS

Parking bays for multi-family projects and townhouses should meet the following:

308-3.1 Minimum single space dimension should be 8 ft. wide and 18 ft. Deep. Maximum number of spaces in a single bay should be 20. Minimum distance between bays should be 8 ft.

308-3.2 Maximum walking distance from a parking space to a public entrance of apartment building served should be:

(a) Non-elderly resident parking space - 250 ft.

(b) Elderly resident parking space - 150 ft.

(c) Guest parking space - 300 ft.

308-3.3 Wheel stops or other appropriate barriers should be provided and suitably placed to prevent unwanted vehicular encroachment beyond parking area limits.

309        WALKS

309-1       GENERAL

Walks should be provided for safe convenient access to all dwellings and for safe pedestrian circulation throughout a development between facilities and locations where major need for pedestrian access can be anticipated.

309-2       PUBLIC OR COMMON USE WALKS

309-2.1    Where the window sill of a bathroom or bedroom is less than 6 ft. Above a public walk, the walk should be at least 8 ft. from the wall containing the window.

309-2.2    Minimum walk width should be 4 ft. except abutting a parking bay or court where it should be 6 ft. to accommodate car overhangs and provide walking space.

309-2.3    Sidewalks at least 5 feet in width should be provided on each side of all arterial streets or designated state roads where necessary for pedestrian and traffic safety. Sidewalks at least 4 feet in width should be placed along marginal access streets where necessary for pedestrian and traffic safety.

309-3       ENTRANCE WALKS

309-3.1    Minimum walk widths should be:

- (a)    Principal walk (serving more than one unit)    4 ft.
- (b)    Minor walk (serving only one unit)                3 ft.
- (c)    One & two family dwelling entrance walk        3 ft.
- (d)    Elevator building entrance walk                    5 ft.

309-4       CHEEK-WALKS

Cheek-walls should be provided at least 4 in. thick for step flights of three or more risers except where the rear intersection of treads and risers are at least 2 in. above grade.

310        SERVICES

310-1       GENERAL

Necessary services supplied by the local community should be provided the required space and accommodation in the site design to permit economical operation and maintenance.

## 310-2 ACCESS

Direct and convenient site access should be provided for all deliveries and services including furniture moving vans, fuel trucks, refuse collections, utility meter readings, mail deliveries, fire fighting equipment and ambulances.

## 310-3 GARBAGE &amp; REFUSE

310-3.1 Single family housing should have space adjacent to each living unit for refuse can storage.

310-3.2 Multiple family housing projects should have an outdoor facility for garbage and refuse collection and disposal which can be maintained in a sanitary, sightly condition where other provisions have not been made. Collection stations should be designed with easily cleaned, nondusting or paved surfaces.

## 310-4 SERVICE SCREENING

Service areas and facilities should be screened.

311 PLANTING DESIGN

## 311-1 GENERAL

Planting design should coordinate appropriate new plant materials and their ecological requirements with the climate, soil, orientation, water courses, existing vegetation, related natural resources and manmade facilities. A variety of plant materials should be provided to enhance the appearance of buildings and grounds, provide necessary screening, help separate incompatible use areas, arrest erosion and reduce noise.

## 311-2 LAWNS

Lawn preparation should include a surface layer having a minimum depth of 4 in. comprised of surface soil with a known local capability of satisfactorily supporting lawn growth.

312 SITE DETAILS

## 312-1 GENERAL

Elements of the site such as shelters, service structures, walls, fences, planting tubs and boxes, benches, patios recreational equipment and paved areas should be furnished according to occupant needs and local customs.

(5-12-87) SPECIAL PN

312-2 LAUNDRY DRYING YARDS

Laundry drying space should be provided in suitable areas and located away from public view where other laundry drying facilities are not furnished.

312-3 WALLS AND FENCES

312-3.1 Walls and fences should be included in the site design as appropriate to provide safety, screening, noise reduction or grade transition.

312-3.2 Guardrails or other suitable barriers should be provided on accessible retaining walls or at other locations which, because of the height (24 in. or over) or other factors, constitute a hazard to life safety.

312-4 OUTDOOR LIGHTING

All public areas where pedestrian use can be anticipated after sunset should be adequately lighted for security purposes where arrangements for permanent maintenance and operation can be assured.

313 COMMON USE FACILITIES

313-1 GENERAL

Improved open space for both active and passive recreation should be provided. The improvement should be consistent with the size of the development, age levels, and needs of intended occupants and should consider operation and maintenance costs.

312-2 RECREATION

312.2.1 Adequate recreation space appropriately equipped should be provided, consisting of open areas for active recreation such as playground or major sports, and places for passive recreation such as parks and sitting areas.

312.2.2 Publicly owned and maintained parks, playgrounds and school grounds which are convenient to a development and readily available for use by the residents may be considered in the design of the site.

312.2.3 Recreation areas for the elderly should be separated from areas designed for use by children or young adults in projects accommodating both elderly and families.

314 HILLSIDE DEVELOPMENT

314-1 GENERAL

It is the intent of this Section to provide guidelines for sites, where the majority of the land area has slopes exceeding fifteen percent (15%) and special measures must be taken to provide adequate building sites with safe access and reliable utilities. These steep sites will be acceptable for Rural Development financed housing only if the State Director determines there are no other suitable sites of lesser slopes available in the area where the housing need exists.

314-2 MANUFACTURED SLOPES

314-2.1 All manufactured slopes adjacent to the roadway should normally be a maximum of two horizontal to one vertical (2:1 unless limited to existing topography or constructed in rock. Manufactured slopes of less than two to one (2:1) may be permitted where adequate slope control measures such as retaining walls or rip-rap embankment are utilized. The slope should in no case exceed the natural angle of repose of the material. Cut and fill slopes should be constructed to eliminate sharp angles of intersection with the existing terrain and should be rounded and contoured as necessary to blend with the natural topography to the maximum possible intent.

314-2.2 All manufactured slopes, other than those constructed in rock, should be planted or otherwise protected from the effects of storm erosion as soon as possible after construction and should be benched, terraced and excessive runoff diverted as required to provide for adequate stability. If the severity of the slope or the composition of the soil indicates unusual stability hazards, according to soil reports, further remedies may be necessary as determined with the assistance of a qualified soils engineer.

314-3 LOT AREAS

As the slope of terrain increases, lot areas normally increase to provide adequate outdoor living area, driveways, allowance for slope maintenance, snow removal or collection, etc. Lots should be of adequate size to meet the needs of occupants of the structure to be placed thereon.

(5-12-87) SPECIAL PN

314-4 LOT WIDTH

The lot width should be sufficient to provide an acceptable building site and reasonable and safe access.

314-5 WALKWAYS

Walkways should be provided when dwelling units have frontage on major streets and highways, or when considered necessary to provide pedestrian safety along public streets. Slip resistant stepping stones or other durable materials may be substituted for paved walks. Walkways should preserve the character of the hilly area to the maximum extent possible.

314-6 STREET CONSTRUCTION

Streets constructed on a gradient in excess of 18% should consist of a portland cement concrete surfacing with a minimum thickness of 6 inches placed on a suitable base course and should be provided with a roughened surface to minimize skidding or slipping of vehicles.

314-7 DRIVEWAYS

Driveways should be designed to a grade and alignment that will provide the maximum safety and transition to prevent "bottoming out" in a manner which will not interfere with drainage or public use of the street and/or street area.

314-8 LIGHTING

Where considered necessary for safety purposes and where permanent maintenance and operation can be assured, outdoor lighting and/or street lighting should be provided.

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CHAPTER 4  
BUILDING DESIGN

400      GENERAL

Building design should provide for an attractive living facility and environment suited to the social, economic, and recreational needs of resident families and individuals. It should provide for ease of circulation and housekeeping, visual and auditory privacy, appropriate light and ventilation, fire and accident protection, economy in maintenance and use of space, accessory services, energy efficiency, and sanitation facilities.

401      SPACE PLANNING

401-1      GENERAL

In multi-family housing projects designed for both elderly and for families with children, living units for the elderly should be located in separate structures, floors or wings of the building.

401-2      NON-RESIDENTIAL SPACES

401-2.1      Community Social Rooms

Where community social and recreational rooms are provided, they should be designed in accordance with the needs of the occupants and have adjacent toilet facilities for men and women which are accessible to the handicapped. An adjacent storage area should be provided. Such spaces should be provided in housing for the elderly.

401-2.2      Management and Maintenance Space

Space should be provided to commensurate with the number of living units served. Also, space should be provided for necessary staff where social services are provided.

401-2.3      Central Laundries

Central laundry facilities containing space for automatic washers, dryers and sorting tables should be located near the elevators or other pedestrian traffic center for the convenience and safety of the users. The space within the laundries should be visible from an adjacent public area.

401-2.4      Project Storage

Space for storage of maintenance supplies and equipment such as paint, hand tools, lawn mowers, snow blowers, etc., should be provided in accordance with the needs of the project.

401-2.5 Facilities for Trash and Garbage Disposal

(a) Provide for the temporary sanitary storage of trash and garbage and for its subsequent disposal or removal.

(b) Design and construction of trash chutes should be of appropriate size and type and in accordance with NFPA Standard No. 82, Incinerators and Rubbish Handling. Each trash chute hopper should be located in a room of not less than 20 sq. ft.

401-3 LIVING, DINING, BEDROOMS

401-3.1 Each dwelling unit should contain space for general family living and group activities, dining, sleeping, dressing, and personal care.

401-3.2 Minimum Room Sizes Based on Sq. Ft. Area

TABLE 4-1.1

RECOMMENDED MINIMUM ROOM SIZES

A. Minimum Room Sizes for Separate Rooms

Name of Space (1)	Minimum Area (Sq. Ft.) (7)					Least Dimension
	LU with 0-BR	LU with 1-BR	LU with 2-BR	LU with 3-BR	LU with 4-BR	
LR	NA	160	160	170	180	11'-0"
DR	NA	100	100	110	120	8'-4"
BR (primary) (2)	NA	120	120	120	120	9'-4"
BR (secondary)	NA	NA	80	80	80	8'-0"
Total area, BR's	NA	120	200	280	280	_____

B. Minimum Room Sizes for Combined Spaces

Combined Space (1) (4)	Minimum Area (Sq. Ft.) (7)					Least Dimension (3)
	LU with 0-BR	LU with 1-BR	LU with 2-BR	LU with 3-BR	LU with 4-BR	
LR-DA	NA	210	210	230	250	
LR-DA-SL	250	NA	NA	NA	NA	
LR-DA-K (5)	NA	270	270	300	330	
LR-SL	210	NA	NA	NA	NA	
K-DA (6)	100	120	120	140	160	

Notes

(1) Abbreviations:

LU = Living Unit	K = Kitchen
LR = Living Room	NA = Not Applicable
DR = Dining Room	BR = Bedroom
DA = Dining Area	SL = Sleeping Area
O-BR = LU with no separate bedroom	

(2) Primary bedrooms should have at least one wall space of at least 10 ft. Uninterrupted by openings less than 44 in. above the floor.

(3) The minimum dimensions of a combined room should be the sum of the dimensions of the individual single rooms involved except for the overlap or combined use of space.

(4) For two adjacent spaces to be considered a combined room, the horizontal opening between spaces should be at least 8 ft. - 0 in. except that between kitchen and dining functions the opening may be reduced to 6 ft. - 0 in. Spaces not providing this degree of openness should meet minimum room sizes required for separate rooms.

(5) A combined LR-DA-K should have a clear opening between the kitchen and dining area of at least 4 ft. - 0 in.

(6) These minima apply when the only eating space is in the kitchen.

(7) The floor area of an alcove, or recess off a room, having a dimension less than required for the room should be included only if it is not more than 10 percent of the minimum room size permitted and is useful for the placement of furniture.

401-4 KITCHENS, BATHS, LAUNDRIES

401-4.1 Kitchen

(a) Kitchen fixtures and countertops should be provided in accordance with Table 4-1.2. Countertops should be approximately 24 in. deep and 36 in. high. Clearance between base cabinet fronts in food preparation area should be 40 in. minimum.

(b) Countertops may be combined when they are located between two fixtures stove, refrigerator, sink. Such a countertop should have a minimum frontage equal to that of the larger of the countertops being combined. This combined counter may also be the mixing counter when its minimum length is equal to that required for the mixing counter. Countertop frontages may continue around corners.

TABLE 4-1.2

RECOMMENDED COUNTERTOPS AND FIXTURES (6)

Work Center	Number of Bedrooms				
	0	1	2	3	4
	Minimum Frontages in Lineal In.				
Sink	18	24	24	32	32
Countertop, each side	15	18	21	24	30
Range or Cooktop Spaces (1) (2) (5)	21	21	24	30	30
Countertop, one side (3)	15	18	21	24	30
Refrigerator Space (4)	30	30	36	36	36
Countertop, one side (3)	15	15	15	15	18
Mixing Countertop	21	30	36	36	42

Notes

(1) Where a built-in wall oven is installed, provide an 18 in. wide counter adjacent to it.

(2) A range should not be located under a window nor within 12 in. of window. Where a cabinet is provided above a range, 30 in. clearance should be provided to the bottom of an unprotected cabinet, or 24 in. to the bottom of a protected cabinet.

(3) Provide at least 9 in. from the edge of a range to an adjacent corner cabinet or side wall, and 15 in. from the side of a refrigerator to an adjacent corner cabinet.

(4) Refrigerator space may be 33 in. when refrigerator door opens within its own width.

(5) When a range is not provided, a 30 in. wide space should be provided.

c. Kitchen storage shelf area should be provided in accordance with Table 4-1.3. At least one third of the required area should be located in base or wall cabinets.

(6) A cooking facility and refrigerator should be provided in each rental unit.

TABLE 4-1.3

RECOMMENDED STORAGE AREA

SQ. FT.	Number of Bedrooms				
	0	1	2	3	4
Minimum Shelf Area	24	30	38	44	50
Minimum Drawer Area	4	6	8	10	12

401-4.2 Baths

(a) Each dwelling unit should have at least one bathroom containing a lavatory, water closet, and bathtub. Bathrooms should provide for comfortable access to, and use of, each fixture. Bathrooms should be convenient to the bedrooms.

(b) Bathrooms should be provided with the following accessories:

- (1) Grab bar and soap dish at tub or shower
- (2) Shower curtain rod or enclosure at shower
- (3) Toilet paper holder at water closet
- (4) Mirror and medicine cabinet or equivalent enclosed storage
- (5) Two towel bars

(c) Water impervious wainscot should be provided at walls around showers or tub-showers to a height of 6 ft. from the finish floor.

401-4.3 Laundry

(a) Where common laundry is not provided, space should be provided in each unit for a clothes washing machine equipped with power supply and water and waste piping or a laundry tray.

(b) Where other drying facility is not furnished, space should be provided in each living unit for a dryer equipped with power supply and vent to the outside.

#### 401-5 CLOSETS AND GENERAL STORAGE

##### 401-5.1 Bedroom Closets

Each bedroom should have accessible clear hanging space equipped with rod and shelf which meets or exceeds the following:

Double Occupancy Bedrooms

2' -0" x 5' -0"

Single Occupancy Bedrooms

2' -0" x 3' -0"

##### 401-5.2 Coat Closet

A 2 ft. x 2 ft. (clear floor area) coat closet should be provided convenient to the entrance.

##### 401-5.3 Linen Storage should be provided as follows:

(a) Minimum shelf area: 10 sq. ft. for 2 bedrooms or less, 15 sq. ft. for 3 or more bedrooms.

(b) Spacing of shelving: Not less than 12 in. o.c.

##### 401-5.4 General Storage

(a) In addition to closets and kitchen storage, each dwelling unit should have a minimum total volume of interior and exterior storage of 200 cu. ft. plus 75 cu. ft. per bedroom.

(b) General storage may be reduced 75 cu. ft. when exterior maintenance is to be performed by other than occupants.

(c) At least one third of the total volume of general storage space provided should be located for the convenient storage of items used outdoors, except for elderly housing.

(d) Each living unit having one or more bedrooms should have at least one closet for general storage or utility purposes located in a conveniently accessible place within the unit. This closet should be at least 6 sq. ft. in area and full room height. The remainder of the general storage may be located in bedroom and coat closets provided this space is in addition to the required closet space.

(e) Common storage should be in a dry area with space divided into lockable compartments or closets for each living unit.

401-6 GARAGES AND CARPORTS

Where garages or carports are provided, they should be designed to provide space for full size cars as well as for convenient opening of doors and circulation around cars. Their location should provide convenient vehicular access as well as convenient access to living units.

401-7 CEILING HEIGHTS

401-7.1 Ceiling heights clear under beams or other obstructions should be in accordance with Table 4-1.4.

TABLE 4-1.4

RECOMMENDED MINIMUM CLEAR CEILING HEIGHTS

Habitable Rooms	7'-6"
Halls within living unit, Baths	7'-0"
Luminous Ceilings	
Within living unit	7'-0"
Public Corridor	7'-4"
Sloping Ceilings	At least 7'-6" for 1/2 the room with no portion less than 5'-0"
Public Corridors	7'-8"
Public Rooms	8'-0"
Basements without Habitable Rooms	6'-8" (6'-4" under girders)

402 ACCESS AND CIRCULATION

402-1 GENERAL

Space and facilities should be provided for convenient access to and circulation within dwellings for occupants and for movement of furniture and supplies. The relationship of rooms within the living unit and the relationship of living units to each other should provide a degree of privacy commensurate with desirable living conditions.

402-2 ENTRANCE FACILITIES

Entrances should have appropriately sized exterior platforms when access is not from a paved area such as a porch, terrace, garage or carport.

402-3 DOORS AND OPENINGS

402-3.1 Recommended minimum doorway widths should be:

Public Doors

Main entrance to building	3'-0", 6'-0 for double doors
Secondary public entrance to building	3'-0"
Service entrance to building	2'-8"
Public stairway	3'-0"

Private Doors

Main entrance to living unit	3'-0"
Secondary entrance to living unit	2'8" (5'-0" sliding glass doors may be used)
Bathrooms, toilets in living unit	2'-0"
Habitable rooms	2'-6"

402-3.2 A door should be provided at each entrance to a building, living unit, and required stairway enclosure; within the living unit, a door should be provided at each opening to a bedroom, bathroom, toilet room, and closets.

402-3.3 Locking devices at doors and windows should be as follows:

a. Each exterior doorway or doorway leading to garage areas, public hallways, terraces, balconies, or other areas affording easy access to the premises should be protected by a door which, if not a sliding door, should be equipped with a deadlock using either an interlocking vertical bolt and striker, or a minimum 1/2 in. Throw dead bolt, or a minimum 1/2 in. throw self-looking dead latch. Locks should not require the use of a key for operation from the inside.

b. All sliding doors, first floor and basement windows, and windows opening onto stairways, fire escapes, porches, terraces, balconies, or other areas affording easy access to the premises, should be equipped with a locking device.

c. Swinging entrance doors to a living unit should be keyed alike.

d. Bathroom, toilet room, and primary bedroom doors should be equipped with a privacy lock which can be opened from the outside in an emergency.

402-3.4 All entrance doors, including storm and screen doors, opening outward should be provided with a safety door check. Main and secondary public doors should be equipped with a door closer.

402-3.5 When the attic or crawl space contains mechanical equipment, the access opening and any accompanying areaway should be of sufficient size and shape to permit replacement of the equipment.

402-3.6 Access openings to common attic or crawl spaces of multi-family housing should not be located within the living units.

#### 402-4 CORRIDORS

The width of corridors at elevators should be greater than the width of the corridor at other locations except where the elevator is serving six living units or less per floor. The increase in width should be at least 20 percent for corridors or hallways less than 5 ft. wide, and at least 12 percent for corridors from 5 ft. to 7 ft. wide.

#### 402-5 CIRCULATION

Each bedroom should have access to a bathroom without an intervening bedroom, kitchen, or principal living or dining area. Bedrooms should not afford the only access to a required bathroom except in one bedroom units. Neither a bedroom nor a bathroom should afford the only access to a habitable room.

#### 402-6 STAIRWAYS

402-6.1 Stairways and landings should provide for safe ascent and descent under normal and emergency conditions and for the transport of furniture and equipment. They should be designed to minimize noise transmission into adjacent living units.

402-6.2 Stairways having three or more risers should have a handrail 30 in. in height on at least one side of the stairways. Handrails should have intermediate rails or ornamental closures which will not allow passage of an object 5 in. or more in diameter.

403 LIGHT AND VENTILATION

Light and ventilation should be provided to achieve a healthful environment within the dwelling and so located as to provide an acceptable degree of comfort. Structural spaces should have natural ventilation to reduce conditions conducive to decay and to release stored heat. Ventilation should be considered for the removal of excessive moisture vapor in living units.

404 ACOUSTIC CONTROL

Living units should be designed to provide an acoustically-controlled environment in relation to exterior noise and noise from adjacent living units and public spaces.

405 FIRE PREVENTION

405-1 GENERAL

405-1.1 Every living unit should be: (a) constructed so as to reduce fire hazard separated from every other living unit by construction or distance to restrict the spread of fire, and (c) be designed to provide means of safe egress in the event of a fire.

405-1.2 The fire protection recommendations in this section may be more stringent than the minimum requirements of local building codes and applicable development standards.

405-2 FIRE RESISTANCE RATINGS (One & two family dwellings only)

TABLE 4-5.1

RECOMMENDED MINIMUM FIRE RESISTANCE IN HOURS

Construction	Type of Housing	
	Detached and Semi-Detached	Row Houses Attached
Party, common walls	1	1-1/2 (1) (2)
Exterior lot-line walls	3/4	3/4
Partitions at common entrance halls (1)	3/4	3/4
Bearing partitions	1/3	1/3
Floor-ceiling assemblies (4) (5)		
Roof-ceiling assemblies (4)		
Separation between garage and living unit (1)	3/4	3/4

Notes:

- (1) Combustible walls which are penetrated with electrical outlets or other mechanical devices should have interior (cavity) fire protection.
- (2) Walls should extend at least 18 in. above top of roof. See 405-3.1 b for alternate methods.
- (3) Supporting walls, beams and columns - 1 hour.
- (4) Floor assemblies over nonhabitable basements, roof assemblies for detached and semi-detached housing, supporting beams and columns - 1/6 hour.
- (5) Floor assemblies not meeting the 1/6 hour fire resistance rating may be acceptable where a single station smoke detector is provided for every level.

405-3 INTERIOR FIRE PROTECTION (One & two family dwellings only)

405-3.1 Party, Common and Lot-Line Walls

- (a) Walls should extend the full height of the dwelling without openings from foundation to the roof.
- (b) Walls separating row houses may be carried up to the underside of the roof sheathing and sealed tightly in the following conditions:
  - (1) Where the roof framing and deck are noncombustible and roof covering material is at least Class C Classification (ASTM E108).
  - (2) Where the roof construction provides one hour protection against sheathing burn through with a Class A brand (tested in accordance with Burning Brand Test of ASTM E08) for width of 6 ft. on each side of the wall.
- (c) Plumbing and heating stacks may be placed in party, common and lotline walls where wall construction provides a minimum of one-hour protection on each side of stacks. Penetration of the wall by electrical outlets or recessed cabinets should not be back to back, and there should be a minimum of one-hour protection around penetration.

405-4 INTERIOR FINISH

405-4.1 Flame Spread Limitations

- (a) The surface flame spread rating of interior finish materials of walls, ceilings and kitchen cabinets should not exceed 200 determined by an independent testing laboratory or recognized association laboratory.

(b) Flame spread of kitchen cabinets should apply to combustible cabinet doors, exposed end panels and bottoms and counter tops. Cabinet frame rails, stiles, mullions and toe strips are exempted.

#### 405-4.2 Marking

Except for conventional homogeneous materials whose flame spread characteristics have been determined by test and are in common usage, all finishing materials should be marked to indicate the maximum flame spread rating.

#### 405-5 FIRE ALARM AND EXTINGUISHING SYSTEMS

##### 405-5.1 Fire Alarm Systems

(a) Every exit arrangement serving more than eight living units or building, of three stories or more in height should be equipped with a manual fire alarm system. Each floor should have at least one or more manual fire alarm boxes and sounding devices at visible points in the natural paths of escape from fire and near each exit.

(b) Exterior and interior corridor type buildings four or more stories in height should have an alarm system which transmits an alarm automatically to the fire department which is legally committed to serve the area in which the building is located, or to a 24-hour monitoring service inside or outside the building. An annunciator which indicates the fire floor should be located at a central point within the building.

(c) Buildings may have a zoned noncoded alarm system that sounds an alarm on the fire floor, floor below the fire floor and the floor above the fire floor and provision at central monitoring point to activate a general fire alarm.

(d) All fire alarm systems should be electrically supervised.

(e) A smoke detector, which may be a single or multiple station alarm device should be installed in each living unit near the sleeping areas on each floor and on each additional floor of the living unit.

(f) All smoke detectors that control fire doors or elevators should automatically initiate a general fire alarm when activated.

##### 405-5.2 Fire Extinguishing System

(a) For all buildings four stories or more in height, an automatic sprinkler protection system should be provided in

all corridors, common spaces used by occupants such as dining rooms and lounges, service and utility areas such as maintenance shops, laundries, central boiler rooms and trash collection rooms.

(b) Sprinkler systems should be equipped with an automatic alarm initiation device that will activate the general alarm system for the building.

#### 405-5.3 Equipment and Installation

(a) Fire alarm, smoke detectors and extinguishing equipment should be listed by a nationally recognized testing laboratory that maintains periodic inspection of production of listed equipment, and whose listing states either that the equipment meets nationally recognized standards or has been tested and found suitable for use in a specified manner.

(b) Smoke detectors should comply with the following standards: Underwriters Laboratories Standard No. 168 for photo-electric type detectors and No. 167 for ionization type detectors.

(c) All smoke detectors should be permanently mounted to a standard electrical outlet box on or adjacent to the ceiling except those which activate fire doors may be incorporated in the door closer.

(d) Installation of fire alarm and extinguishing systems should be in accordance with NEPA No. 72A for fire alarm systems and NEPA No. 13 for sprinkler systems. Spacing of sprinkler heads in corridors should be positioned 15 ft. on maximum centers.

#### 405-6 STANDPIPES

All buildings five stories or 55 ft. or greater in height should be equipped with wet standpipes of number, size and construction in accordance with NFPA No. 14 "Standpipe and Hose Systems" for Class I services.

#### 406 MISCELLANEOUS

##### 406-1 ANTENNA SYSTEMS

A master television antenna system should be provided for each multi-family project which consists of twenty or more dwelling units or with three or more floors, and for which cable service (CRTV) has not been installed.

APPENDIX A  
GLOSSARY OF HOUSING TERMS

Anchor bolts: Bolts to secure a wooden sill to concrete or masonry floor or wall.

Areaway: An open subsurface space adjacent to a building used to admit limit or air or as a means of access to a basement or cellar.

Astragal: A molding, attached to one of a pair of swinging doors against which the other door strikes.

Attic ventilators: In houses, screened openings provided to ventilate an attic space. They are located in the soffit area as inlet ventilators and in the gable end or along the ridge as outlet ventilators. They can also consist of power-driven fans used as an exhaust system. (See also Louver.)

Balusters: Small spindles or members forming the main part of a railing for stairway or balcony, fastened between a bottom and top rail.

Balustrade: A railing made up of balusters, top rails, and sometimes bottom rail used on the edge of stairs, balconies, and porches.

Base shoe: Molding used next to the floor on interior baseboard. Sometimes called a carpet strip.

Battern: Narrow strips of wood or metal used to cover joints.

Bearing wall: A wall that supports any vertical load in addition to its own weight.

Bridging: Small wood or metal members that are inserted in a diagonal position between the floor joists to act both as tension and compression members for the purpose of bracing the joists and spreading the action of loads.

British Thermal Unit: (B.T.U.) A unit of measurement of the quantity of heat required to raise the temperature of 1 pound of water 1 degree F. The mean B.T.U. is usually used, which is one-one hundred eightieth of the heat required to raise the temperature of 1 pound of water from 32 degrees F. to 212 degrees F. at a constant atmospheric pressure of 14.69 p.s.i.

Built-up roof: A roofing composed of three to five layers of rag felt or jute saturated with coal tar, pitch, or asphalt. The top is finished with crushed slag or gravel. Generally used on flat or low-pitched roofs.

Cant strip: A wedge or triangular-shaped piece of lumber used at gable ends under shingles or at the junction of the house and a flat deck under the roofing.

(5-12-87) SPECIAL PN

Chase: A groove or shaft in a masonry wall provided for accommodation of pipes, ducts, or conduits.

Conduit, electrical: A pipe, usually metal, in which wire is installed.

Corbel: To build out one or more courses of brick or stone from the face of a wall.

Corner bead: A strip of formed galvanized iron, sometimes combined with a strip of metal lath, placed on corners before plastering to reinforce them. Also, a strip of wood finish three-quarters-round or angular placed over a plastered corner for protection.

Corner boards: Used as trim for the external corners of a house or other frame structure against which the ends of the siding are finished.

Corner braces: Diagonal braces let into studs to reinforce corners of frame structures.

Cornice: A decorative element made up of molded members usually placed at or near the top of an exterior or interior wall.

Cornice return: That portion of the cornice that returns on the gable end of a house.

Counterflashing: A flashing usually used on chimneys at the roofline to cover shingle flashing and to prevent moisture entry.

Cricket or saddle: A small drainage diveting roof structure of single or double slope placed at the junction of larger surfaces that meet at an angle.

Crown molding: A molding used on cornice or wherever a large angle is to be covered.

Dampproofing: A treatment of a surface or structure which retards the passage of water. See Waterproofing.

Doorjamb: The surrounding case into which and out of which a door closes and opens. It consists of two upright pieces, called jambs, and a head, fitted together and rabbeted.

Dormer: An internal recess, the framing of which projects from a sloping roof.

Drip cap: A molding placed on the exterior top side of a door or window to cause water to drip behind the outside of the frame.

Drywall finish: Interior covering material, such as gypsum board which is applied in large sheets or panels.

Ducts: In a house, usually round or rectangular metal pipes for distributing warm air from the heating plant to rooms, or air from a conditioning device. Ducts are also made of composition materials.

Eaves: The margin or lower part of a roof projecting over the wall.

Expansion joint: A bituminous fiber strip used to separate blocks or units of concrete to prevent cracking due to expansion as a result of temperature changes.

Facia or fascia: A flat board, band, or face, used sometimes by itself but usually in combination with moldings, often located at the outer face of the cornice.

Fire stop: A solid, tight closure of a concealed space, placed to prevent the spread of fire and smoke through such as space.

Flashing: Sheet metal or other impervious material used in roof and wall construction to protect a building from seepage of water.

Flue lining: Fire clay or terra cotta pipe, round or square, usually made in all of the ordinary flue sizes and in 2-foot lengths, used for the inner lining of chimneys with the brick or masonry work around the outside.

Footing: The spreading course or courses at the base or bottom of a foundation wall, pier, or column.

Foundation: The supporting portion of a structure below the first-floor construction, or below grade, including the footings.

Framing, platform: A system of framing a building in which floor joists of each story rest on the top plates of the story below or on the foundation sill for the first story, and the bearing walls and partitions rest on the subfloor of each story.

Furring: Strips of wood or metal applied to a wall or other side to even it, to form an airspace, or to give the wall an appearance of greater thickness.

Gable: In house construction, the portion of the roof above the eave line of a double-sloped roof.

Gable end: An end wall having a gable.

Girder: A large or principal beam used to support concentrated loads at isolated points along its length.

Grade:

Finish: The top surface elevation of lawns, walks, drives, or other improved surfaces after completion of construction or grading operations.

Natural: The elevation of the original or undisturbed natural surface of the ground.

Subgrade: The elevation established to receive top surfacing or finishing materials.

Grade beam: A reinforced concrete beam supporting the exterior wall construction, in contact with the earth, but supported by piers.

Grout: Mortar made of such consistency by the addition of water that it will just flow into the joints and cavities of the masonry work and fill them solid.

Habitable room: A room designed and used for living, sleeping, eating or cooking, or combination thereof. Bathrooms, toilet compartments, closets, halls, storage rooms, laundry and utility spaces, basement recreation rooms and similar areas are not considered habitable rooms.

Header: (a) A beam placed perpendicular to joists and to which joists are nailed in framing for chimney, stairway, or other opening. (b) A wood lintel.

Hip: The external angle formed by the meeting of two sloping sides of a roof.

Hip roof: A roof that rises by inclined planes from all four sides of a building.

Humidifier: A device designed to increase the humidity within a room or a house by means of the discharge of water vapor. They may consist of individual room-size units or larger units attached to the heating plant to condition the entire house.

Jack rafter: A rafter that spans the distance from the wall-plate to a hip, or from a valley to a ridge.

Jamb: The sidepost or lining of a doorway, window, or other opening.

Joists: A series of floor, roof, or ceiling framing members spaced not more than 30 inches o.c. Members supporting roofs having slopes over 3 in 12 are not defined as roof joists. See Rafter.

Kiln dried lumber: Lumber that has been kiln dried often to a moisture content of 6 to 12 percent. Common varieties of softwood lumber, such as framing lumber are dried to a somewhat higher moisture content.

Ledger strip or nailer: A strip of lumber nailed along the bottom of the side of a girder on which joists rest.

Lintel: A horizontal structural member that supports the load over an opening such as a door or window.

Loads:

Living unit: A residential unit providing complete, independent living facilities for one family including permanent provisions for living, sleeping, eating, cooking and sanitation.

Concentrated: A load concentrated upon a specified small area of a floor, roof, wall or other member.

Dead: The weight of all permanent construction in a building.

Design: Total load which a structure or member is designed to sustain safely without exceeding specified deformation.

Live: The weight of all moving and variable loads that may be placed on or in a building such as snow, wind, occupancy, etc.

Uniform: An average load applied uniformly over a floor, roof or wall or along a beam or girder.

Mastic: A thick, pasty sealant or adhesive.

Metal lath: Sheets of metal that are slit and drawn out to form openings on which plaster is spread.

Millwork: Generally all building materials made of finished wood and manufactured in millwork plants and planing mills are included under the term "millwork." It includes such items as inside and outside doors, window and doorframes, blinds, porchwork, mantels, panelwork, stairways, moldings, and interior trim. It does not include flooring, ceiling, or siding.

Miter: The joining of two pieces at an angle that bisects the angle of junction.

Mortise: A slot cut into a board, plank, or timber, usually edgewise, to receive tenon of another board, plank, or timber to form a joint.

Molding: Material, usually patterned strips, used to provide ornamental variation of outline or contour, whether projections or cavities, such as cornices, bases, window and door jambs, and heads.

Mullion: A slender bar of pier forming a division between panels or units of windows, screens, or similar frames.

Muntin: The members dividing the glass or openings of sash, doors, and the like.

Newel: A post to which the end of a stair railing or balustrade is fastened. Also, any post to which a railing or balustrade is fastened.

Nosing: The projecting edge of a molding or drip. Usually applied to the projecting molding on the edge of a stair tread.

On Center: The measurement of spacing for studs, rafters, joints, and the like in a building from center of one member to the center of the next member.

Outtrigger: An extension of a rafter beyond the wall line. Usually a smaller member nailed to a larger rafter to form a cornice or roof overhang.

Paper:

Building: A general term for papers, felts, and similar sheet materials used in buildings without reference to their properties or uses.

Sheathing: A building material, generally paper or felt used in wall and roof construction as a protection against the passage of air and sometimes moisture.

Penny: As applied to nails it originally indicated the price per hundred. The term now serves as a measure of nail length and is abbreviated by the letter "d".

Perm: The unit of measurement of the water vapor permeance of a material. Value of one perm is equal to one grain of water vapor per square foot per hour Per inch of mercury vapor pressure difference.

Pier: A masonry or concrete column supporting foundations or the floor structure in basementless spaces. Pier may be freestanding or bonded at its sides to other masonry or concrete.

Pilaster: A pier forming part of a masonry or concrete wall partially projecting therefrom and bonded thereto.

Pitch: The incline or rise of a roof. Pitch is expressed in inches of rise per foot of run, or by the ratio of the rise to the span.

Plates: Horizontal wood member which provide bearing and anchorage for wall, ceiling, and roof framing.

Sillplate: Plate on top of foundation wall which supports floor framing.

Wall plate: Plate at top or bottom of wall or partition framing. Further defined as topplate, at top, and soleplate, at bottom.

Rafter or joistplate: Plate at top of masonry or concrete wall supporting rafter or roof joist and ceiling framing.

Plenum: An air compartment or chamber to which one or more ducts are connected and which forms part of an air distribution system. Crawl space may be used as a plenum without ductwork when properly constructed.

Plinth: The square block at the base of a column or pedestal.

Plumb: Perpendicular, i.e., standing according to a plumb line as the post of a house or wall is plumb.

p.s.i.: Abbreviation for pounds per square inch. The term is used to indicate the strength of a body. In a wood beam, joist, or rafter, it represents the load it will sustain per square inch of cross-sectional area.

Primer: The first coat of paint in a paint job that consists of two or more coats; also the paint used for such as first coat.

Purlin: An intermediate supporting member at right angles to rafter or truss framing.

Quarter round: A molding that presents a profile of a quarter circle.

Rabbet: A rectangular longitudinal groove cut in the corner of a board or other piece of material.

Radiant heating: A method of heating usually consisting of coils or pipes placed in the floor, wall, or ceiling.

Rafters: A series of roof framing members spaced not more than 30 inches o.c. in roofs having slopes over 3 in 12. Members supporting roofs having 3 in 12 or less are defined as roof joists.

Rafter, hip: A rafter that forms the intersection of an external roof angle.

Rafter, jack: A rafter that spans the distance from a wall-plate to a hip or from a valley or ridge.

Rafter, valley: A rafter that forms the intersection of an internal roof angle.

Rake: The trim members that run parallel to the roof slope and from the finish between wall and roof.

Ribbon: A narrow board let into the studding to add support to joists.

Ridge: The horizontal line at the junction of the top edges of two sloping roof surfaces. The rafters at both slopes are nailed at the ridge.

Ridge board: The board placed on the edge of the ridge of the roof to support the upper ends of the rafters.

Rise: The height of a roof rising in horizontal distance (run) from the outside face of a wall supporting the rafters or trusses to the ridge of the roof. In stairs, the perpendicular height of a step or flight of steps.

Riser: Each of the vertical boards closing the spaces between the treads of stairways.

Run: In reference to roofs, the horizontal distance from the face of a wall to the ridge of the roof. Referring to stairways, the net width of a step; also the horizontal distance covered by a flight of steps.

Saddle: Two sloping surfaces meeting in a horizontal ridge used between the back side of a chimney, or other vertical surface, and a sloping roof.

Scratch coat: The first coat of plaster, which is scratched to form a bond for the second coat.

Screeds: Strips of plaster of the desired coat thickness laid on a surface to serve as guides for plastering the intervals between them. Also the intermediate leveling strips in concrete slabs.

Scribing: Fitting woodwork to an irregular surface.

Sealer: A finishing material, either clear or pigmented, that is usually applied directly over uncoated wood for the purpose of sealing the surface.

Siding: The finish covering of the outside wall of a frame building whether made of weatherboards, vertical boards with battens, shingles, plywood, or other material.

Siding, level (lapsiding): Used as the finish siding on the exterior of a house or other structure. It is usually manufactured by resawing dry square surfaced boards diagonally to produce two wedge-shaped pieces. These pieces commonly run from three-sixteenths inch thick on the thin edge to one-half to three quarters inch thick on the other edge depending on the width of the siding.

Sill: The lowest member of the frame of a structure, resting on the foundation and supporting the uprights of the frame. The member forming the lower side of an opening, as a doorsill, windowsill, etc.

Soffit: The underside of the members of a building, such as staircases, cornices, beams, and arches, relatively minor in area as compared with ceilings.

Soil stack: A general term for the vertical main of a system of soil, waste, or vent piping.

Sole or soleplate: A member on which wall and partition studs rest.

Span: The distance between structural supports such as walls, columns, piers, beams, girders, and trusses

Splashblock: A small masonry block laid with the top close to the ground surface to receive roof drainage and to carry it away from the building.

Square: A unit of measure - 100 square feet - usually applied to roofing material. Sidewall coverings are often packed to cover 100 square feet and are sold on that basis.

Stool: The flat, narrow shelf forming the top member of the interior trim at the bottom of a window.

String, stringer: A timber or other support for cross members. In stairs, the support on which the stair treads rest; also stringboard.

Stucco: Most commonly refers to an outside plaster made with Portland cement as its base.

Stud: One of a series of slender wood or metal vertical structural members placed as supporting elements in walls and partitions. (Plural: Studs or studding.)

Subfloor: Boards or plywood placed on joists over which a finish floor is to be laid.

Suspended ceiling: A ceiling system supported by hanging it from the overhead structural framing.

Toenailing: To drive a nail at a slant with the initial surface in order to permit it to penetrate into a second member.

Trimmer: A beam or joist to which a header is nailed in framing for a chimney, stairway, or other opening.

Threshold: A strip of wood or metal beveled on each edge and used above the finish floor under outside doors.

Tread: The horizontal board in a stairway on which the foot is placed.

Trim: The finish materials in a building, such as moldings, applied around openings (window trim, door trim) or at the floor and ceiling of rooms (baseboard, cornice, picture molding.)

Truss: A structural framework composed of a series of members so arranged and fastened together that external loads applied at the joints will cause only direct stress in the members.

Trussed rafter: A truss where the chord members are also serving as rafters and ceiling joists and are subject to bending stress in addition to direct stress.

Under layment: A material placed under finish coverings, such as flooring, or shingles, to provide a smooth, even surface for applying the finish.

Vapor barrier: Material used to retard the flow of vapor or moisture into walls and thus to prevent condensation within them. There are two types of vapor barriers, the membrane that comes in rolls and is applied as a unit in the wall or ceiling construction, and the paint type, which is applied with a brush. The vapor barrier must be a part of the warm side of the wall.

Walls:

Bearing wall: A wall which supports any vertical load in addition to its own weight.

Cavity wall: A masonry or concrete wall consisting of two wythes arranged to provide an airspace within the wall in which the inner and outer wythes of the wall are tied together with metal ties.

Faced wall: A wall in which the masonry facing and the backing are so bonded as to exert a common reaction under load.

Fire wall: A wall with qualities of fire resistance and structural stability which subdivides a building into fire areas and which resists the spread of fire.

Foundation wall: A wall, below or partly below grade, providing support for the exterior or other structural parts of a building.

Masonry wall: A bearing or nonbearing wall of hollow or solid masonry units.

Nonbearing wall: A wall which supports no vertical load other than its own weight.

Veneered wall: A wall with a masonry face which is attached to but not bound to the body of the wall.

Weatherstrip: Narrow or jamb-width sections of thin metal or other material to prevent infiltration of air and moisture around windows and doors. Compression weather stripping prevents air infiltration, provides tension, and acts as a counter balance.

APPENDIX B  
ABBREVIATIONS

AA	Aluminum Association
AAMA	Architectural Aluminum Manufacturers Associations
ACI	American Concrete Institute
AHA	American Hardboard Association
AIA	American Institute of Architects
ANSI	American National Standards Institute
ARMA	Asphalt Roofing Manufacturers Association
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASTM	American Society for Testing and Materials
AWS	American Welding Society
BOCA	Building Officials and Code Administrators
Btuh	British thermal units per hour
CABO	Council of American Building Officials
cfm	Cubic feet per minute
CFR	Code of Federal Regulations
CPSC	Consumer Product Safety Commission
CRI	Carpet and Rug Institute
CS	Commercial Standard
EO	Executive Order
ext.	Exterior
F	Fahrenheit (degrees)
FGMA	Flat Glass Marketing Association
FHDA	Fir and Hemlock Door Association
FS	Federal Specification
ft.	Feet
gals.	Gallons
Hr.	Hour
in.	Inches
int.	Interior
lb.	Pound
max.	Maximum
MIMA	Mineral Insulation Manufacturers Association
min.	Minimum
MR	Materials Release
MS	Manual Series
NAHB-RF	National Association of Home Builders--Research Foundation
NAS	National Academy of Sciences
NBS	National Bureau of Standards
NCDC	National Climatic Data Center
NFPA	National Fire Protection Association
NOFMA-OFGR	National Oak Flooring Manufacturers Association - Official Flooring Grading Rules
NRCA	National Roofing Contractors Association
NSDJA	National Sash and Door Jobbers Association

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Appendix B

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NTMA	National Terrazzo & Mosaic Association
NWMA	National Woodwork Manufacturers Association
oz	Ounces
PCI	Prestressed Concrete Institute
PS	Product Standard
PTI	Post-Tensioning Institute
psf	Pounds per square feet
PVC	Polyvinyl chloride
RFCI	Resilient Floor Covering Institute
SCACM	Southern California Association of Cabinet Manufacturers
SGCC	Safety Glazing Certification Council
sq	Square
SI	International Standard
t & g or	Tongue and groove
T & G	
TCA	Tile Council of America
U	Coefficient of thermal transmission
	Btu/(hour) x (square foot) x (F inside - F outside)
UFAS	Uniform Federal Accessibility Standards
UL	Underwriters Laboratories, Inc.
UM	Use of Materials Bulletin
WM	Wood Moulding and Millwork Producers
WQA	Water Quality Association (Formerly Water Conditioning Foundation)

GUIDE 3  
QUALITY AND PERFORMANCE CRITERIA  
FOR  
MODERATE REHABILITATION

RD Instruction 1924-A  
Guide 3

FOREWORD

This Guide is designed to assist Rural Development personnel and potential applicants in determining the feasibility and acceptability of existing multi-family residential properties for moderate rehabilitation. The moderate rehabilitation quality and performance criteria contained in this Guide are significantly different from those Rural Development's development standards that apply to substantial rehabilitation. This Guide should be used in conjunction with Rural Development's Design Guide and Manual of Acceptable Practice (MAP). Although this Guide, the Design Guide, and the MAP are not mandatory documents, the construction and development plans for each moderately rehabilitated multi-family development should address the liveability and marketability objectives contained in these documents. Substantial deviation from these objectives will be evaluated by our appraisal process and reflected in the present market value.

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CHAPTER 1      GENERAL USE

100    APPLICATION

The criteria in this Guide apply to the moderate rehabilitation of existing multi-family residential properties. The range of moderate rehabilitation covered by this Guide is broad. In a general context this Guide will aid in establishing the feasibility of a property considered for moderate rehabilitation. It also provides information which is useful in preliminary planning, evaluation and development work. Properties needing substantial rehabilitation must meet the same Rural Development's Development Standards as new multi-family housing.

101    GENERAL

These guidelines provide minimum performance requirements and acceptability criteria for the moderate rehabilitation of dwellings to be financed by the Rural Development. The guidelines are intended to serve as an aid to providing marketable, decent, functional, safe, sanitary and attractive housing through the moderate rehabilitation of existing dwelling units. In all cases the building or project to be rehabilitated shall be structurally sound. The applicant shall have a structural analysis of the existing building made to determine the adequacy of all structural systems for the proposed rehabilitation. Rural Development differentiates between moderate rehabilitation, maintenance and repair and substantial rehabilitation as follows:

Maintenance and Repair - Work involved in the selective replacement and general maintenance and repair of certain materials, appliances or components of an existing residential building.

Moderate Rehabilitation - All work directly involved in the rearrangement of interior space, the replacement of finish materials or components of the electrical, plumbing, heating or conveyance systems of an existing multi-family residential building. Work and improvements are considered to be more than routine maintenance and repair.

Substantial Rehabilitation - All work directly involved in the rearrangement of interior space that involves alteration of load bearing partitions and columns; the replacement of the electrical, plumbing, heating or conveyance systems; and the addition to and/or major conversion of existing multi-family residential buildings or other building structures.

The components of multi-family building rehabilitation necessary and generally considered by Rural Development to be either maintenance and repair, moderate rehabilitation or substantial rehabilitation include but are not limited to those in the following chart.

COMPONENTS OF MULTI-FAMILY BUILDING REHABILITATION

<u>COMPONENTS</u>	<u>Maintenance And Repair</u>	<u>Moderate Rehab.</u>	<u>Substantial Rehab.</u>
Appliance replacement or repair	o		
Air conditioning	o		
Cabinet replacement or repair	o		
Carpeting	o		
Caulking	o		
Clothes closets or shelving improvements	o		
Door repair	o		
Drywall repair	o		
Gutters and downspouts	o		
Hardware replacement or repair	o		
Kitchen cabinet improvements	o		
Lath and plaster repair	o		
Lighting fixture replacement or repair	o		
Mail boxes	o		
Painting	o		
Paneling	o		
Partition repair	o		
Roof repair	o		
Signage	o		

COMPONENTS OF MULTI-FAMILY BUILDING REHABILITATION

COMPONENTS	Maintenance And Repair	Moderate Rehab.	Substantial Rehab.
Stair repair	o		
Wallpapering	o		
Window shades and curtains	o		
Ceiling framing		o	
Door replacement		o	
Drywall replacement		o	
Elevator components replacement		o	
Exterior entrance redesign, relocation		o	
Finish flooring materials		o	
Flashing		o	
Furnace replacement		o	
Insulation		o	
Lath and plaster replacement		o	
New shingles or roof replacement		o	
Partition (non bearing) replacement, or relocation		o	
Plumbing fixture replacement		o	
Pointing (Masonry)		o	
Porch and step alteration cr replacement		o	
Stair replacement or relocation		o	
Storm windows and weatherstripping		o	
Trim - exterior and interior		o	
Window replacement		o	

COMPONENTS OF MULTI-FAMILY BUILDING REHABILITATION

<u>COMPONENTS</u>	<u>Maintenance And Repair</u>	<u>Moderate Rehab.</u>	<u>Substantial Rehab.</u>
- New or alteration to the -			
Electrical wiring system			o
Gas pipes			o
Mechanical system			o
Soil pipes			o
Vent pipes			o
Waste pipes			o
Water supply system			o
- Alteration or replacement of structural components-			
Beams			o
Chimneys and vents			o
Columns and post			o
Electrical service - replacement or new			o
Elevator replacement			o
Exterior walls			o
Floor construction			o
Footing			o
Foundation wall			o
Foundation waterproofing			o
Interior walls			o

Moderate rehabilitation and repair shall not be limited to building changes for cosmetic or convenience purposes. In all cases moderate rehabilitation shall involve a minimum of three (3) components of building rehabilitation listed as moderate. Unless combined with other improvements in a project that are considered to be moderate or substantial rehabilitation the items identified as maintenance and repair are considered to be cosmetic and convenience changes.

When a project consists of both moderate and substantial rehabilitation components, those substantial rehabilitation components shall be in accordance with Rural Development's development standards and local codes and regulation requirements. Where the majority of project components of building rehabilitation are considered substantial the project shall be considered in the substantial rehabilitation category.

Those site components of rehabilitation such as landscaping, grading, drainage, fencing, parking areas, recreation areas, water and waste disposal systems, etc., whether considered either maintenance and repair, moderate rehabilitation or substantial rehabilitation shall be in accordance with Rural Development's development standards for site development work; all local codes and regulation requirements, and sound engineering and architectural practices.

The site requirements contained in Section 4 of the Uniform Federal Accessibility Standards (UFAS), the provisions of Sections 4.1.5, Accessible Building; Additions and 4.1.6 Accessible Building; Alterations and all other appropriate UFAS requirements shall apply to all moderate rehabilitation. Where Rural Development Instructions are more stringent than UFAS they shall apply.

Any alteration of a structure listed or eligible for listing on the National Register of Historic Places may be considered either moderate or substantial rehabilitation. However, it shall conform first to the Secretary of the Interior's Standards for Rehabilitation are Guidelines for Rehabilitating Historic Buildings and then to Rural Development's requirements. In cases where the Secretary of the Interior's standards cannot be met, rehabilitation will conform to the agreed upon approaches, treatments and techniques resulting from the consultation process between Rural Development, the borrower, the State Historic Preservation Officer are the Advisory Council of Historic Preservation.

## 102 GUIDE FORMAT

The format of this Guide is to first list a major component of moderate rehabilitation (the chapter title); second, state the performance requirement that should be met for that component: and third provide acceptable criteria for meeting the performance requirement. Also, by identifying acceptable criteria for various components of moderate rehabilitation, e.g., site and community, building design, fire safety, construction, mechanical equipment and exterior and interior finishes, the Guide achieves the major objectives of Rural Development, or ensuring decent, safe, and sanitary housing and related facilities with adequate liveability.

Appendix A, Definitions, provide a basis for understanding the meaning of the phrases and terms used in this Guide.

103 LOCAL CODES AND REGULATIONS

These guidelines, while setting forth basic objectives and provisions specifically related to moderate rehabilitation, shall not be construed as relieving the property owner, project sponsor or their builder of his or her responsibility for compliance with State and local ordinances, codes, and regulations including established requirements of a health officer or other authority having jurisdiction.

Chapter 2    RESERVED

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Chapter 3 SITE AND COMMUNITY

300 PERFORMANCE REQUIREMENT

The site location and facilities shall create a safe, functional, accessible, healthful and attractive living environment for residents.

301 ACCEPTABILITY CRITERIA

301-1 SITE CONDITIONS

301-1.1 The Property should not be subject to hazards such as objectionable smoke, noxious odors, unusual noise, the probability of flooding, mud slides, or subsidence.

301-2 OPEN SPACE

Every residential building should have sufficient open space to permit convenient access for maintenance, fire protection, adequate light and ventilation of habitable rooms and reasonable indoor privacy.

301-3 OUTDOOR ENVIRONMENT

Adequate landscaped open space should be available for active and passive recreation. Adequate night lighting for safe use of streets, parking areas, walks and steps should be available or provided.

301-4 SITE IMPROVEMENTS

The improvement of each property should provide for (a) the immediate diversion of water away from buildings and disposal from the site, (b) the prevention of soil saturation detrimental to structures and site use (c) appropriately paved walks, parking areas, driveways, exterior steps and landscaping where needed, (d) facilities for trash collection and removal and (e) reasonable amount of recreation equipment (passive and/or active) to meet the tenants needs.

301-5 ACCESS TO THE BUILDING

Walks and steps should be provided for all weather access to the building and constructed so as to provide safety, reasonable durability and economy of maintenance.

(5-12-87) SPECIAL PN

- 301-5.1 A primary entrance readily accessible to the physically handicapped, should be provided to any residential structure intended for occupancy or use by the elderly or physically handicapped.

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Chapter 4 BUILDING DESIGN

400 PERFORMANCE REQUIREMENT

Each living unit should provide for a healthful environment with complete living facilities arranged and equipped for suitable and comfortable living.

401 ACCEPTABILITY CRITERIA

401-1 SPACE

401-1.1 General

(a) Provide each living unit with space necessary for suitable living, sleeping, cooking and dining accommodations, and storage, all sanitary facilities. This space should be of such size and dimensions so as to permit placement of furniture and essential equipment.

(b) Habitable rooms in basements or below grade intended for year-round occupancy should comply with building requirements in the same manner as rooms above grade.

(c) Space for laundry equipment should be provided in each living unit or, central laundry facilities must be readily accessible to the tenants.

401-1.2 Privacy and Arrangement

(a) A degree of privacy should be provided commensurate with suitable living conditions by means of the proper location of exterior openings to exterior conditions, and by the interior arrangement of rooms.

(b) Access to all parts of a living unit should be possible without passing through a public hall.

(c) Every water closet, bathtub or shower of a living unit should be installed in a bathroom which will afford privacy to the occupant.

(d) A bathroom should not be used as a passageway to a habitable room, hall, basement or to the exterior.

(e) A bathroom should not be separated from all bedrooms of a living unit by locating it a full story above or below the bedrooms.

(f) A bedroom should not be used as the only means of access to another bedroom or habitable room.

401-1.3 Kitchen Facilities

Each living unit should have a specific kitchen space, which contains a sink with counter work space and has hot and cold running water, adequate space for installing cooking and refrigeration equipment, and for storage.

401-1.4 Bath Facilities

Complete bathing and sanitary facilities should be provided within each living unit; they should consist of a watercloset, a tub or shower, and a lavatory. Provide an adequate supply of hot water to the tub or shower stall and lavatory, and cold water to all fixtures. Arrangement of fixtures should provide for the comfortable use of each fixture and permit at least a 90 degree door swing. A mirror, medicine cabinet and towel bars should be provided in a convenient location.

401.1.5 Closets and General Storage

Clothes closet space should be provided within bedrooms or conveniently located nearby. In addition, each living unit should have a suitable space within the unit or a locked space elsewhere within the building or development for general storage.

401-1.6 Community Rooms

In housing for the elderly, community, social and recreational rooms with adjacent toilet facilities should be provided.

401-2 LIGHT AND VENTILATION

401-2.1 Provide a healthful environment and an acceptable degree of comfort within all rooms and hallways of the dwelling by having sufficient light and ventilation.

401-2.2 Ventilation of Structural Spaces

Natural ventilation of spaces such as attics and enclosed basementless spaces should be provided by openings of sufficient sizes to overcome dampness and minimize the effect of conditions conducive to decay and deterioration of the structure, and to prevent excessive heat in attics. Exterior ventilation openings should be effectively screened where needed.

401-3 DOORS AND ACCESS OPENINGS

Provide openings adequate in size to admit furniture and equipment to all spaces are to permit inspection for repair and maintenance.

401-3.1 Exterior doors should have secure locks.

401-3.2 A primary entrance door should be at least 3'-0" wide.

401-3.3 Provide a door for each opening to bedroom, closet, bathroom or toilet compartment; with a locking device on bath and toilet compartment doors.

401-4 STAIRWAYS

401-4.1 All stairways shall provide safety of ascent and descent, and stairs and landings shall be arranged to permit adequate headroom and space for the passage of furniture and equipment.

401-4.2 Existing stairways in sound condition to remain or to be repaired shall not be to any serious extent below minimum standards of good practice as to rise and run of steps, headroom, obstructions, stair width, landings, or railing protection.

401-5 CORRIDORS AND HALLWAYS

401-5.1 Corridors and hallways shall provide adequate, safe and unobstructed circulation from living units or other spaces to various means of exit. Corridors are hallways above the main floor should have more than one exit.

401-5.2 In housing for the elderly handrails shall be provided on at least one side of all tenant corridors (except within living units).

401-6 ELEVATORS

Where provided, an elevator shall furnish convenient and safe ascent and descent to all living units and service areas. The character and type of elevator service and equipment should be appropriate to the building being rehabilitated and to its occupants.

401-7 TRASH AND GARBAGE DISPOSAL

Every dwelling and multi-family building shall be supplied with a convenient means of disposal or removal of trash and garbage.

401-8 NOISE CONTROL

Acoustical control should be provided to attain an acceptable are livable environment. Where possible sound reduction insulation and/or other means of reducing noise should be installed between living units and between living units and public spaces.

401-9 INDOOR AIR QUALITY

Provide a healthful environment that is free of indoor air pollutants such as, formaldehyde, radon, asbestos fibers, combustion gases and particles are any other pollutant known to affect one's health. If a pollutant(s) exist measured concentrations should be compared with existing standards, typical concentrations in homes, and levels known to cause health problems to determine if the structure being moderately rehabilitated will have an indoor air quality problem.

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Chapter 5 FIRE PROTECTION

500 PERFORMANCE REQUIREMENTS

Provide a high degree of safety to life and property preservation, by the separation of living units and the use of materials which will retard the spread of fire and prevent the passage of flame, smoke and hot gases through open or concealed spaces within the building. An additional requirement is to provide means of egress which will permit persons to leave the building with safety in an emergency, and permit access for fire control personnel.

501 ACCEPTABILITY CRITERIA

Life safety provisions including height and area limitations, interior finishes, fire alarm and extinguishing systems and standpipe should be in substantial conformance with the applicable recognized code for the local community. When a building cannot be rehabilitated in substantial conformance with an applicable code, alternate methods of protection acceptable to local authorities should be provided.

501.1 A smoke detector shall be installed in each living unit.

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Chapter 6 CONSTRUCTION

600 PERFORMANCE REQUIREMENTS

The construction of the building should provide: (a) sufficient structural strength and rigidity, (b) adequate protection from corrosion, decay, insects and other destructive forces, (c) necessary resistance to the elements, (d) reasonable durability and economy of maintenance, and (e) acceptable quality of workmanship.

All structural components of the building should be in sound condition and considered serviceable for the expected useful life of the rehabilitated building. Sagging or out of plumb floors, chimneys, partitions or stairs, and bulging of exterior walls should be restored as near as practical to an acceptable level or plumb position and supported or braced so as to prevent a recurrence of these conditions. Stair railings should be rigid. Individual structural members in a deteriorated condition should be replaced.

In areas subject to earthquake damage (zones 3 & 4) are wind damage (70 mph or higher) assurance of adequate protection should be provided that is no less than current code requirements.

601 ACCEPTABILITY CRITERIA

601-1 THERMAL PROTECTION

Comply with RD Instruction 1924-A, Exhibit D, "Thermal Performance Construction Standards" for existing building.

601-2 EXTERIOR WALLS

601-2.1 All exterior walls should provide safe and adequate support for all loads upon them, and prevent the entrance of water or excessive moisture. Serious defects should be repaired and cracks effectively sealed.

601-2.2 Basement and foundation walls should prevent the entrance of water or moisture into a basement or crawl space area. Cracks in the walls should be effectively sealed, and loose or defective mortar joints should be repaired. Where necessary, the interior or exterior face of the walls should be dampproofed or water proofed as appropriate.

601-3 PARTITIONS, COLUMNS AND POST

Partitions and other vertical supports which are to be continued in use should be free of splits, excessive lean, buckling or other defects.

(5-12.87) SPECIAL PN

601-4 FLOOR CONSTRUCTION

All floor construction should provide safe and adequate support for all existing or probable loads and should be reasonably free of objectionable vibration. A suitable surface for finish flooring should exist or be provided.

601-5 CHIMNEYS, AND VENTS

Chimneys and vents should be structurally safe, durable, smoketight and capable of withstanding the action of flue gases. Factory-built chimneys shall be labeled by Underwriters' Laboratories, Inc. and installed in accordance with the listing.

601-6 PROTECTION FROM RODENTS, TERMITES OR OTHER INFESTATION

Each building and all exterior related facilities on the site should be effectively protected against rodents, termites or other vermin infestation.

601-6.1 Inspection and Correction

A careful inspection by qualified persons or licensed firm should be made of each building and accessory structure on each site for evidence of actual or potential infestation. Existing buildings having defects shall be corrected by appropriate preventive measures within the definition of moderate rehabilitation.

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Chapter 7      EXTERIOR AND INTERIOR FINISHES

700      PERFORMANCE REQUIREMENT

The buildings exterior are interior finishes should: A) prevent the entrance or penetration of moisture, b) protect from damage by decay, corrosion, insects and other destructive elements and c) provide reasonable durability and economy of maintenance.

701      ACCEPTABILITY CRITERIA

701-1      EXTERIOR FINISHES

701-1.1      Wall Covering

Repairs or replacement should be made to defective exterior wall finish materials. Exterior walls should be free of holes, cracks and broken or rotted finish materials.

701-1.2      Roof Covering

All roofs should have a suitable, watertight and reasonably durable covering free of curling, holes, cracks, excessively worn surfaces or other defects.

701-2      GUTTERS AND DOWNSPOUTS

Each dwelling should have a controlled method of disposal of water from roofs where necessary to divert water away from building and entry, to prevent damage to the property, and to avoid causing unsightly staining of walls and windows where adequate roof overhangs are not provided.

701-3      FLASHING

To prevent the entrance of water, all critical joints in exterior roof and wall construction which are exposed or partly exposed should be protected by sheet metal or other suitable flashing material.

701-4        WINDOWS, DOORS AND OTHER OPENINGS

701-4.1     Existing windows and doors, including their hardware should operate satisfactorily and give evidence of continuing acceptable service. Defective glass or locking mechanisms should be replaced or corrected.

701-4.2     Screens should be provided for all windows, doors and other openings except in regions where their use is not customary or needed.

701-5        INTERIOR WALL AND CEILING FINISHES

701-5.1     All interior walls and ceilings should provide (a) a finish surface without noticeable irregularities or cracking, (b) a waterproof and hard surface in spaces subject to moisture, (c) a suitable base for painting or other decoration and (d) reasonable durability and economy of maintenance.

701-5.2     In housing for elderly, abrasive wall finishes such as a sand finish should not be used.

701-6        FINISH FLOORS

Floors should be appropriate to the use of the space, in good condition, and should provide reasonable ease of maintenance.

701-7        PAINTING AND DECORATION

Protective and decorative finish coating or surfacing should provide (a) adequate resistance to weathering, (b) protection of finish surfaces from moisture or corrosion, (c) an attractive appearance, and (d) reasonable durability.

701-8        LEAD-BASED PAINT

Comply with RD Instruction 1924-A, Exhibit H, "Prohibition of Lead-Based Paints," for interior and exterior surfaces or existing buildings.

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Chapter 8 MECHANICAL EQUIPMENT

800 PERFORMANCE REQUIREMENT

Provide mechanical equipment for the building and its living units that should meet the needs of the intended occupants and be of a quality and condition which will assure: (a) safety of operation, (b) adequate capacity for its internal use, (c) protection from moisture, corrosion or other destructive elements, (d) reasonable quietness of operation, and (e) reasonable durability and economy of maintenance.

801 ACCEPTABILITY CRITERIA

801-1 GENERAL

801-1.1 All mechanical equipment should be installed so that maintenance and replacement can be performed without the removal of other equipment.

801-1.2 Existing mechanical equipment and system should be inspected for faulty operation, and potential fire or other hazards. Needed replacement, or repair should conform to code requirements.

801-2 HEATING

Heating facilities should be provided for each living unit and other spaces that will: (1) assure interior comfort, (2) be safe and convenient to operate, (3) be economical in performance, and (4) be quiet in operation and free from objectionable drafts.

801-3 PLUMBING

801-3.1 The plumbing system for each building should provide satisfactory water supply, drainage, venting and operation of fixtures.

801-3.2 Condition of existing plumbing systems including building sewers should operate free of fouling and clogging, and not have cross connections which permit contamination of water supply, back siphonage between fixtures or air hammer.

801-4 ELECTRICAL

- 801-4.1 All habitable rooms and other appropriate spaces requiring electrical service should be provided with a system of wiring, wiring devices and equipment to safely supply electrical energy for power illumination, resident security, appliances, and other electrical equipment.
- 801-4.2 Existing wiring and equipment should not be a potential source for fire or electrical hazards as determined by the proper authority. Existing facilities that are inadequate to meet anticipated demands should be appropriately corrected.
- 801-4.3 The appropriate provisions of the local code or the National Electrical Code should be used for design and layout of new electrical work. Completed work must be acceptable to local authority.

## APPENDIX A - DEFINITIONS

The definitions given in this section are included to provide a basis for understanding the meaning of the terms and phrases used in this Guide. None are intended to nullify the provisions of any local code but are furnished to provide maximum understanding of these guidelines.

Addition: Any construction which increases the size of a building or adds to the building.

Alteration: Construction which may change the floor plan, structural parts, mechanical equipment or location of openings but which does not increase the size of the building.

Attic: Accessible space between top of uppermost ceiling and underside of the roof. Inaccessible spaces are considered structural cavities.

Dampproofing: A treatment of a surface or structure which retards the passage of water.

Dwelling: A building designed or used as the living quarters for one or more families.

Detached: A dwelling which is completely surrounded by permanent open spaces.

Semi-detached: A dwelling, one side wall of which is a party or lot-line wall.

Row: A dwelling, the walls on two sides of which are party or lot-line walls.

Multi-family: A building containing three or more living units for families living independently of each other.

Flashing: Sheet metal or other impervious materials used in roof and wall construction to protect a building from the entry of water.

Foundation: Construction, below or partly below grade, which provides support for exterior walls or other structural parts of the building.

Living Unit: A dwelling or portion thereof providing complete living facilities for one family, including permanent provisions for living, sleeping, eating, cooking and sanitation.

New Construction: (a) Proposed construction or other new structures erected on cleared or vacant land; or (b) New additions to an existing building which enlarge the floor area or height of the building.

Rehabilitation: The restoration of one or more residential properties which overcomes deterioration and obsolescences to provide structures or properties suitable for continued residential use.

Rehabilitation Construction: Rehabilitation construction includes the following categories:

- a. The replacement of present elements of an existing building, such as windows, stairs, walls, floors, foundation, roof, plumbing, wiring, heating or other equipment.
- b. Rearrangement of rooms by the relocation of partitions or by the installation of new bathroom and kitchens.
- c. The general replacement of the interior of a building. This replacement may or may not include changes to structural elements such as floor systems, columns or load bearing interior or exterior walls.

Repair: To restore to a sound and acceptable state of operation, serviceability or appearance. Repairs shall be expected to last approximately as long as would the replacement by new items.

Replace: To remove an existing item or portion of a system, and to construct or install a new item of similar or improved quality as the existing item when new. Replacement will ordinarily take place where the item is not repairable or where repair would not be economically feasible.

Shall: Indicates a requirement.

Should: Indicates minimum good practice but is not mandatory.

Substandard Building: Any building or portion thereof in which there exist conditions serious enough to endanger the life, limb, health, property, safety or welfare of the occupants or of the public, and does not provide decent, safe and sanitary living conditions.

(INSTRUCTION SHEET ONLY - NOT TO BE INCLUDED AS A PART OF THE AGREEMENT FOR ARCHITECTURAL SERVICES)

This Guide is provided for USDA Rural Development field personnel use to assist the applicant in modifying the American Institute of Architects (AIA) Document B141, 1997 Edition, *Standard Form of Agreement Between Owner and Architect with Standard Form of Architect's Services*, to achieve compliance with Rural Development and Rural Housing Service (RHS) regulations and policy. The agreement as modified by this Guide has application for RHS financially assisted housing projects such as those administered under this subpart. Guide 4 is referenced in § 1924.13(a).

The AIA Document B141, 1997 Edition has two parts: the *Standard Form of Agreement Between Owner and Architect with Standard Form of Architect's Services: Design and Contract Administration*. A contract for architectural services is not complete unless both parts of AIA Document B141 are included. Both portions of the document have signature areas that must be signed by the parties involved.

The need to witness the agreement as indicated on page 8 will depend upon State and local requirements for validation of the document. Where appropriate, a copy of the resolution authorizing the individual to act on behalf of the firm or entity should be attached to the agreement.

Attachment

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ATTACHMENT TO AIA DOCUMENT B141-1997, *Standard Form of Agreement Between Owner and Architect With Standard Form of Architect's Services*

The provisions of this Attachment shall delete, modify and supplement the provisions contained in the "*Standard Form of Agreement Between Owner and Architect With Standard Form of Architect's Services*," AIA Document B141-1997 Edition. The provisions contained in this Attachment will supersede any conflicting provisions of the AIA Document. The term "Agency," as used in this Attachment, shall mean the United States of America, acting through the United States Department of Agriculture.

ARTICLE 1.2, RESPONSIBILITIES OF THE PARTIES

Add the following subparagraph to Paragraph 1.2.2:

1.2.2.8 Owner shall provide Agency design and construction document regulations and guides to the Architect, upon request. The Owner shall provide information on requirements and procedures of the Agency.

ARTICLE 1.3, TERMS AND CONDITIONS

Delete the words "unless the parties mutually agree otherwise" and substitute the words "if the parties mutually agree" in the first sentence of subparagraph 1.3.5.2.

Delete subparagraph 1.3.7.1 and substitute the following:

1.3.7.1 This Agreement shall be governed by the laws of the Project location.

Delete subparagraph 1.3.7.4.

Add the following subparagraphs:

1.3.7.10: This Agreement and any amendments to this Agreement shall not be in full force and effect until concurred with in writing by the Agency State Director or the State Director's delegate. Such concurrence shall be evidenced by the signature of such a representative of the Agency in the space provided at the end of this Agreement.

1.3.7.11 If applicable, the Architect shall comply with section 319 of Public Law 101-121, as supplemented by the Department of Agriculture regulations (7 C.F.R. part 3018). This statute pertains to restrictions on lobbying and applies to the recipients of contracts and subcontracts that exceed \$100,000 at any tier under a Federal loan that exceeds \$150,000 or a Federal grant that exceeds \$100,000. If applicable, the Architect must complete a certification form on lobbying activities related to a specific Federal loan or grant that is a funding source for this Contract. The certification and disclosure forms shall be provided by the Owner.

1.3.7.12 The Architect agrees to abide by the requirements under Executive Order 12549, which pertains to the debarment or suspension of a person from participating in a Federal program or activity. If the total compensation described in Article 1.5 exceeds \$25,000, the Architect shall complete the relevant certification form provided by the Owner.

Delete the second sentence in subparagraph 1.3.8.2 and substitute the following:

When the Project is resumed, the Architect's compensation may be equitably adjusted, as mutually agreed, to provide for expenses incurred in the interruption and resumption of the Architect's services.

Insert the words "as mutually agreed" after "Termination Expenses" in subparagraph 1.3.8.7.

Add the words "or representatives of the United States of America" after the words "Owner's authorized representative" in subparagraph 1.3.9.3.

Add the following subparagraph to paragraph 1.3.9:

1.3.9.5 The Architect shall provide a detailed cost estimate for Reimbursable Expenses as defined in subparagraph 1.3.9.2, which shall be attached and made a part of this Agreement. The cost estimate must be approved in writing by the Owner and shall be concurred with in writing by the Agency before the services are rendered. The billings for reimbursable services shall not exceed the budgeted amount without prior approval of the Owner with the concurrence of the Agency. The Agency may not concur in requests for payments which exceed the budgeted amount unless it is established that funds are available for such expenditures.

ARTICLE 1.4, SCOPE OF SERVICES AND OTHER SPECIAL TERMS AND CONDITIONS

Delete the word "both" from the end of the second sentence and conclude the sentence with "Owner, Architect and Agency" in paragraph 1.4.1.

Add the following subparagraph to paragraph 1.4.2:

1.4.2.1 This Agreement is modified and supplemented by RD Instruction 1924-A, Guide 4, Attachment 1.

ARTICLE 2.1, PROJECT ADMINISTRATION SERVICES

Add the words "and concurrence by the Agency" after for "approval by the Owner" in Paragraph 2.1.5.

Add the following paragraph to Article 2.1:

2.1.8 The Architect shall consult with the Agency Architect or Engineer about the Agency's requirements and procedures.

ARTICLE 2.4, DESIGN SERVICES

Add the following subparagraphs:

2.4.2.2 The Architect shall provide the Owner with the appropriate documentation showing the Schematic Design and the estimated Project cost to the Owner to seek the concurrence of the Agency. When the Owner has accepted and the Agency has concurred on the Schematic Design studies and estimated Project cost, the project Architect may be authorized to proceed with the Design Development Documents.

2.4.4.3 The Architect shall attend conferences with the Owner, representatives of the Agency and other interested parties as may be reasonably necessary.

2.4.4.4 The Architect shall certify in writing, to the best of the Architect's knowledge, information and belief, that the Drawings and Specifications are in conformance with the applicable development standard, as defined in Agency regulations furnished by the Owner under subparagraph 1.2.2.8.

2.4.4.5 Prior to advertisement for bids, the Architect shall provide \_\_\_\_\_ sets of Construction Documents for use by the Owner, the Agency and the appropriate Federal, State and local agencies from whom approval of the Project must be obtained. The reproduction cost of such Construction Documents shall be included in the compensation paid to the Architect, notwithstanding subparagraph 1.3.9.2. The Owner shall obtain Agency concurrence with the Construction Documents, estimated Project costs, and authorization to proceed in writing prior to advertisement for bids.

2.4.4.6 The Architect shall furnish additional copies of the Construction Documents as requested by the prospective bidders, and other interested parties, and may charge them a reasonable cost for such copies.

2.4.4.7 Upon award of the construction contract, the Architect shall furnish to the Owner \_\_\_\_\_ sets of Construction Contract Documents for execution. The costs of these sets shall be included in the compensation to the Architect notwithstanding subparagraph 1.3.9.2.

ARTICLE 2.6, CONTRACT ADMINISTRATION SERVICES

Add the following to subparagraph 2.6.1.1 after the words "of this Agreement": "and the conditions of RD Instruction 1924-A, Guide 1, Attachment 10,".

Delete the following words from subparagraph 2.6.1.2 after the word, "terminates": "at the issuance to the Owner of the final Certificate for Payment" and substitute the words "at the expiration of the period of correction of the Work described in the Contract for Construction." Also, delete the last sentence of subparagraph 2.6.1.2.

Delete the first sentence of subparagraph 2.6.1.3 and substitute the following:

2.6.1.3 The Architect shall be a representative of and shall advise and consult with the Owner during construction until final payment to the Contractor is paid, and at the Owner's direction during the period of correction of the Work described in the Contract for Construction. The Architect shall furnish architectural services and consultations necessary to correct minor construction defects encountered during such correction period. The Architect shall assist the Owner in performing a review of the Project during the 11th month after the date of substantial completion. Such services shall be furnished without additional charge except for travel and subsistence costs.

Add the following subparagraph to paragraph 2.6.1:

2.6.1.10 The Architect shall participate in the Preconstruction Conference and shall advise and consult with the Owner and the Agency.

Add the following sentences to the end of subparagraph 2.6.2.1: Such visits to the site shall be documented in writing on inspection report forms acceptable to the Owner and the Agency. Copies shall be furnished to the Owner, Contractor and the Agency.

Add the following subparagraph to paragraph 2.6.2:

2.6.2.6 The Architect shall advise the Owner and the Agency of required tests, inspections and test results; shall furnish coordination of such tests and inspections; and shall advise the Owner and the Agency of the results of same. Copies of test results shall be furnished upon request to the Owner, and the Agency.

Add the following subparagraph to paragraph 2.6.3:

2.6.3.4 The Architect shall obtain Agency concurrence on all Certificates of Payment before payment is made.

Modify subparagraph 2.6.5.1 as follows: In the first sentence after "Architect," delete, "and Construction Change Directives," and add the following to the end of the subparagraph: Preparation of Change Orders which do not substantially affect the Project shall be included in the compensation computed in paragraph 1.5.1. The Owner, with the assistance of the Architect, shall obtain Agency concurrence in writing for all change orders prior to the performance of the Work.

Delete subparagraphs 2.6.6.1, 2.6.6.2, 2.6.6.3 and 2.6.6.4 and substitute the following:

2.6.6.1 The Architect shall conduct an inspection prior to the issuance of the Certificate of Substantial Completion and shall submit a written report of work to be completed to the Owner, the Agency and the Contractor prior to final acceptance. The Architect shall notify the Agency about inspection allowing reasonable time for the Agency's representative to attend. Such services shall be coordinated with the Agency. Prior to submitting the final Certificate for Payment, the Architect shall; 1) conduct an inspection to determine compliance with the requirements of the Contract Documents, and 2) receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract Documents and assembled by the Contractor.

ARTICLE 2.8, SCHEDULE OF SERVICES

Delete items .3 and .8 from paragraph 2.8.2.

Insert the word "Architect" under the heading "Responsibility" for line items 2.8.3.16, 2.8.3.17, and 2.8.3.20 in the chart.

Add the following subparagraphs to paragraph 2.8.3 under the heading "Description of Services." below the chart:

2.8.3.a The Architect shall provide a detailed cost estimate based on Construction Contract Documents. The estimate shall show a breakdown of the project cost in accordance with Rural Development requirements and procedures.

2.8.3.b The selection and compensation of the Project Representative, if required, shall be concurred in by the Agency.

2.8.3.c \_\_\_\_\_ sets of Record Drawings shall be provided to the Owner. The costs of these sets shall be included in the compensation to the Architect notwithstanding Subparagraph 1.3.9.2.

SIGNATURE BLOCK:

Delete the signature blocks on pages 1-12 and 2-12 of this Agreement and substitute the block on the following page in both locations:

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in duplicate on the respective dates indicated below.

OWNER:

ATTEST: \_\_\_\_\_ By \_\_\_\_\_

Type Name \_\_\_\_\_ Type Name \_\_\_\_\_

Title \_\_\_\_\_ Title \_\_\_\_\_

Date \_\_\_\_\_ Date \_\_\_\_\_

ARCHITECT:

ATTEST: \_\_\_\_\_ By \_\_\_\_\_

Type Name \_\_\_\_\_ Type Name \_\_\_\_\_

Title \_\_\_\_\_ Title \_\_\_\_\_

Date \_\_\_\_\_ Date \_\_\_\_\_

The United States of America, as potential lender or insurer of funds to defray the costs of this agreement and without liability for any payments thereunder, hereby concurs in the form, content and the execution of this agreement.

U.S. Department of Agriculture  
Rural Development  
Rural Housing Service

By \_\_\_\_\_

Type Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

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